



**REPORT No. 6**  
**JUNE, 2000**

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This monthly report contains a comparison of Two-way Satellite Time Transfer (TW), Common-view Time Transfer (CV), and Carrier-Phase Time/Frequency Transfer (CP) data analyzed at USNO. Time transfer data is tabulated and analyzed in a one-point-per-day format for the list of timing labs given below. Because we currently process TW data only for those baselines which include USNO, not every baseline combination of these labs is included in this report.

*AMC Colorado Springs, Colorado U.S.A*  
*NPL Teddington, Middlesex, UK*  
*PTB Braunschweig, Germany*  
*USNO Washington, D.C. USA*

### **HOW THE TABLES ARE CALCULATED**

For each baseline, time-transfer data are collected from each of the TW, CV, and CP analysis groups at USNO. To each data time series, a one-day linear fit is made. From this fit, a value for time-transfer is selected which corresponds to an epoch at which a TW data point exists. For those days without TW data, the CP and CV time-transfer value is related to 12:00 UTC. Also, the RMS scatter about each linear fit is given in the table.

Following each table are graphs of TW-CV, TW-CP, and CV-CP differences. Error bars are drawn on each data point reflecting an RSS combination of the RMS values obtained from the linear fits to each TW, CV, and CP time series. Though the tables in each report will consist of one month of data, the graphs will be cumulative until one year of data is collected, after which the graphs will consist of a one-year moving window.

Basic hardware configurations at each site are provided at the end of the report. Because some sites may have more than one receiver/modem, a separate designation has been specified for each receiver combination. For example, the report includes 8 designations for USNO (e.g. USNO(a), USNO(b), ..., USNO(h)) where each designation corresponds to a different combination of CV, CP, and TW receivers/modems. Since each designation represents a combination of TW, CV, and CP receivers/modems, these hardware configuration tables will be somewhat redundant. For example, USNO(a) and USNO(b) differ only in the choice of CV receiver (i.e. the TW and CP hardware are the same for USNO(a) and USNO(b)).

NOTE: Currently, the following site combinations are such that CP receivers are NOT on the same reference standard as the CV and TW hardware: USNO(a), USNO(b), PTB, TUG. However, the USNO(a) and USNO(b) clock estimates are re-referenced to the same timing reference as the CV and TW hardware using an optic fiber

link. Also, CP clock estimates at PTB are referenced to the same timing reference as CV and TW data using data from a SRS620 time-interval counter.

## **ADJUSTMENTS TO THE DATA**

Each table contains a column marked ADJUSTMENTS which indicate any manual adjustments made to the data. For example, we currently remove arbitrary values from the non-calibrated carrier-phase systems to account for receiver resets which can occur for example when a receiver's power is cycled. In particular, first differences of the carrier-phase estimates are taken and spikes larger than 10ns (accounting for large data gaps) are flagged as outliers. Flagged values are then replaced by linearly interpolating adjacent first differences. Finally, the series of first differences is then integrated back into the time domain by choosing an initial arbitrary constant so that all CP values are 0.000 on January 1, 2000. For these carrier-phase adjustments, the ADJUSTMENTS column represents the difference between the raw and the "cleaned" CP data, and is therefore a measure of the individual jumps removed. This is clearly not the optimal method of removing such jumps since some carrier-phase systems track a 1-pps input from the local reference which can be used to re-reference the receiver's internal clock to the external reference when such resets occur. However, since we do not have available such 1-pps for most of the non-USNO sites, we have opted instead to remain consistent and remove carrier-phase jumps according to this very simplistic method.

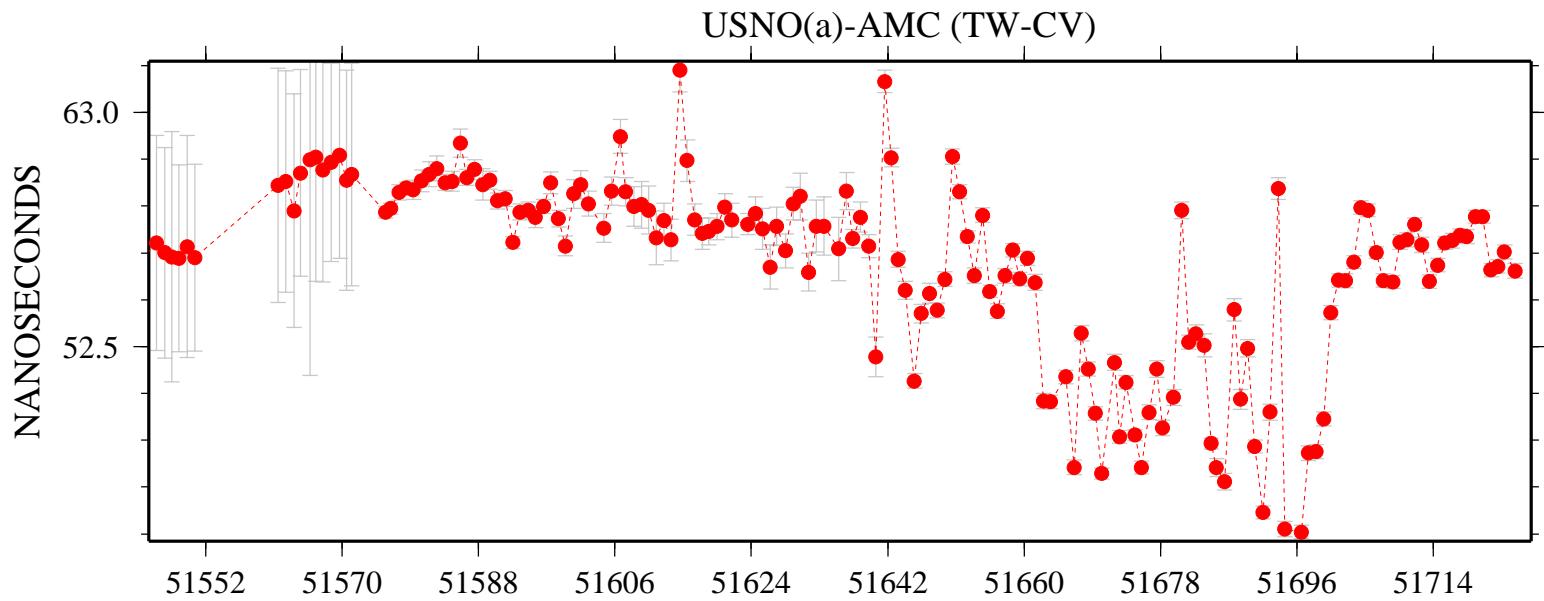
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# USNO(a) - AMC

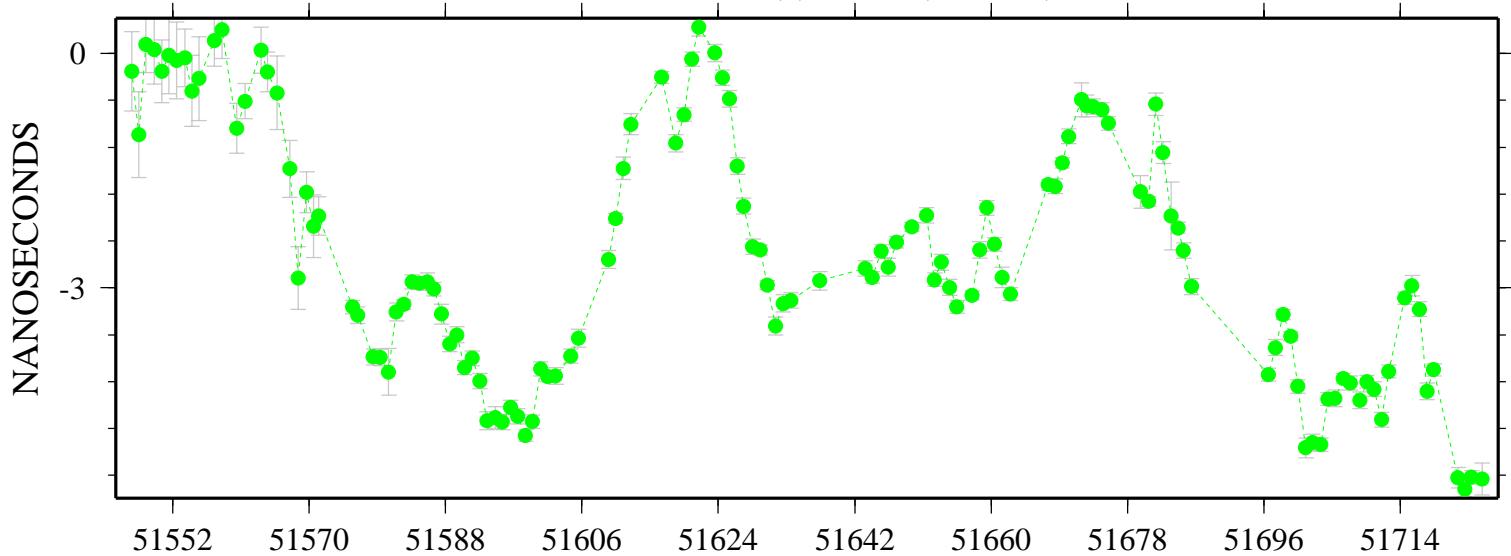
	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51696.5768	0.7	-43.5	4.823	+ 441.246CP	44.2	-4.1	-48.3	0.1	0.3	0.004
51697.5344	0.8	-46.9	4.594		47.7	-3.8	-51.5	0.1	0.3	0.004
51698.5351	1.0	-46.8	4.332		47.8	-3.3	-51.1	0.1	0.3	0.004
51699.5344	0.9	-48.4	4.482		49.3	-3.6	-52.9	0.1	0.3	0.005
51700.4511	0.1	-53.9	4.385	+ 489.269CP	54.0	-4.3	-58.3	0.1	0.3	0.003
51701.5146	-0.9	-56.4	4.175		55.5	-5.0	-60.5	0.1	0.3	0.004
51702.4320	-0.6	-56.1	4.332	- 196.483CP	55.5	-5.0	-60.4	0.1	0.3	0.004
51703.4729	-0.7	-57.0	4.272		56.3	-5.0	-61.3	0.1	0.3	0.003
51704.4511	-0.5	-59.2	3.912		58.7	-4.4	-63.2	0.1	0.3	0.005
51705.3889	-0.6	-59.2	3.852		58.6	-4.4	-63.0	0.1	0.3	0.002
51706.4306	-0.2	-56.9	3.937		56.7	-4.2	-60.9	0.1	0.2	0.004
51707.3889	-0.3	-55.8	3.904		55.5	-4.2	-59.7	0.1	0.3	0.002
51708.6601	-0.6	-56.0	3.859		55.4	-4.4	-59.8	0.1	0.3	0.004
51709.5559	-0.1	-57.3	4.074		57.2	-4.2	-61.4	0.1	0.3	0.004
51710.5344	-0.2	-57.5	4.113		57.3	-4.3	-61.6	0.1	0.3	0.003
51711.4920	-0.5	-58.4	4.221		58.0	-4.7	-62.7	0.1	0.3	0.002
51712.4719	-0.4	-57.5	3.668		57.1	-4.1	-61.1	0.1	0.3	0.003
51713.4927	-0.1	-55.5			55.4			0.1	0.3	
51714.5358	0.4	-55.7	3.555	+ 97.683CP	56.1	-3.1	-59.3	0.1	0.3	0.006
51715.5344	0.7	-56.5	3.654	+ 147.883CP	57.2	-3.0	-60.1	0.1	0.3	0.004
51716.4934	0.5	-56.7	3.799		57.3	-3.3	-60.5	0.1	0.3	0.004
51717.5351	0.1	-57.4	4.416		57.5	-4.3	-61.8	0.1	0.3	0.004
51718.4108	0.7	-56.7	4.792		57.4	-4.0	-61.5	0.1	0.3	0.003
51719.5344	0.5	-57.8			58.3			0.1	0.3	
51720.5139	0.1	-58.3			58.3			0.1	0.3	
51721.6195	-0.4	-56.4	4.991	+ 831.708CP	55.9	-5.4	-61.4	0.1	0.3	0.006
51722.4927	-0.8	-56.9	4.756		56.1	-5.6	-61.7	0.1	0.3	0.003
51723.3885	-0.7	-57.4	4.756		56.7	-5.4	-62.2	0.1	0.3	0.003
51724.7844	-0.4	-56.3	5.072	- 276.119CP	55.9	-5.4	-61.3	0.2	0.3	0.004

The **ADJUSTMENTS** column indicates any manual adjustments (e.g. calibration) that have been applied to either TW, CV, or CP data. In particular, since CP data is currently obtained from non-calibrated systems, arbitrary offsets are often applied to CP data to keep column widths small.

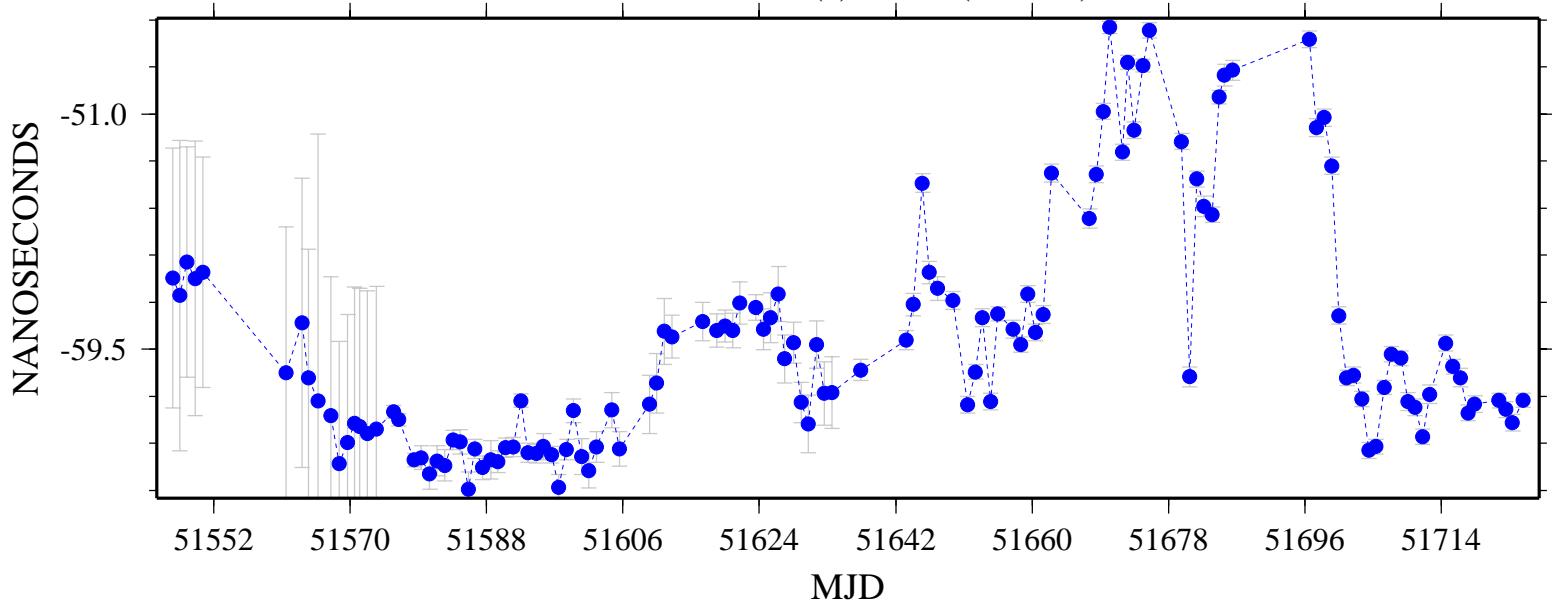
USNO(a)-AMC (TW-CV)



USNO(a)-AMC (TW-CP)



USNO(a)-AMC (CV-CP)



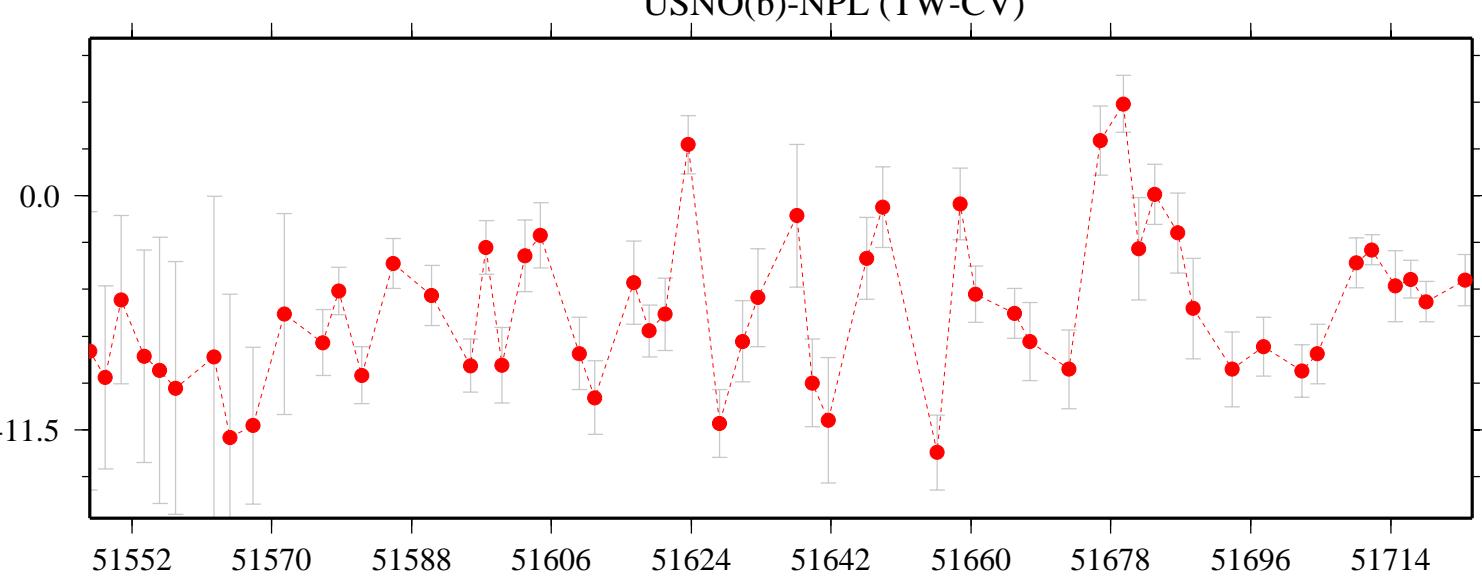
# USNO(b) - NPL

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51696.5000		7.7	-92.128	- 197.336CP			99.9		1.1	0.005
51697.6097	2.1	9.5	-91.739		-7.4	93.8	101.2	0.8	1.2	0.006
51698.5000		8.7	-91.525				100.3		1.0	0.009
51699.5000		6.8	-90.950				97.7		1.4	0.007
51700.5000		10.8	-90.741	+ 489.061CP			101.5		0.9	0.005
51701.5000		8.9	-90.593				99.5		1.3	0.007
51702.6097	3.2	11.8	-90.174	- 196.721CP	-8.6	93.4	102.0	0.4	1.2	0.005
51703.5000		7.8	-89.731				97.5		1.6	0.006
51704.6097	1.6	9.4	-89.371		-7.8	91.0	98.7	0.3	1.4	0.005
51705.5000		10.8	-89.252				100.0		1.8	0.004
51706.5000		8.3	-89.053				97.3		1.2	0.003
51707.5000		13.1	-88.763				101.8		1.0	0.005
51708.5000		13.3							1.2	
51709.6097	5.8	9.1			-3.3			0.3	1.2	
51710.5000		9.8	-85.535				95.3		1.7	0.006
51711.6097	5.2	7.9	-85.638		-2.7	90.9	93.5	0.4	0.6	0.007
51712.5000		13.9	-86.297				100.2		1.7	0.006
51713.5000		14.9							1.1	
51714.6097	4.3	8.7	-86.522	+ 98.521CP	-4.4	90.8	95.2	0.4	1.7	0.008
51715.5000		11.0	-87.011				98.0		2.7	0.015
51716.6097	6.7	10.8	-87.296		-4.1	94.0	98.1	0.3	0.9	0.004
51717.5000		14.0	-86.902				100.9		1.0	0.007
51718.6097	6.5	11.7	-86.578		-5.2	93.0	98.2	0.3	0.9	0.004
51719.5000		14.2							0.7	
51720.5000		12.2	-86.126				98.3		1.2	0.004
51721.5000		10.4	-85.742				96.1		1.7	0.004
51722.5000		14.6	-85.672				100.3		1.5	0.004
51723.6097	6.8	10.9	-85.683		-4.1	92.5	96.6	0.4	1.2	0.004
51724.5000		14.3	-85.588	- 276.180CP			99.8		1.2	0.005

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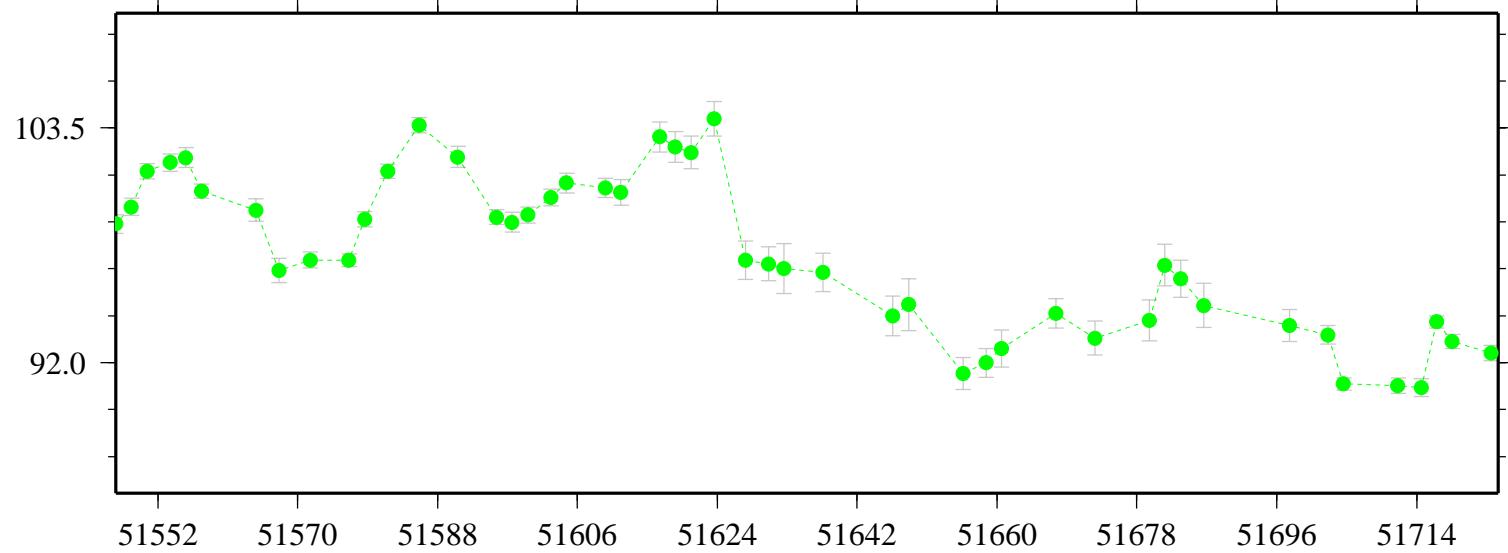
### USNO(b)-NPL (TW-CV)

NANOSECONDS



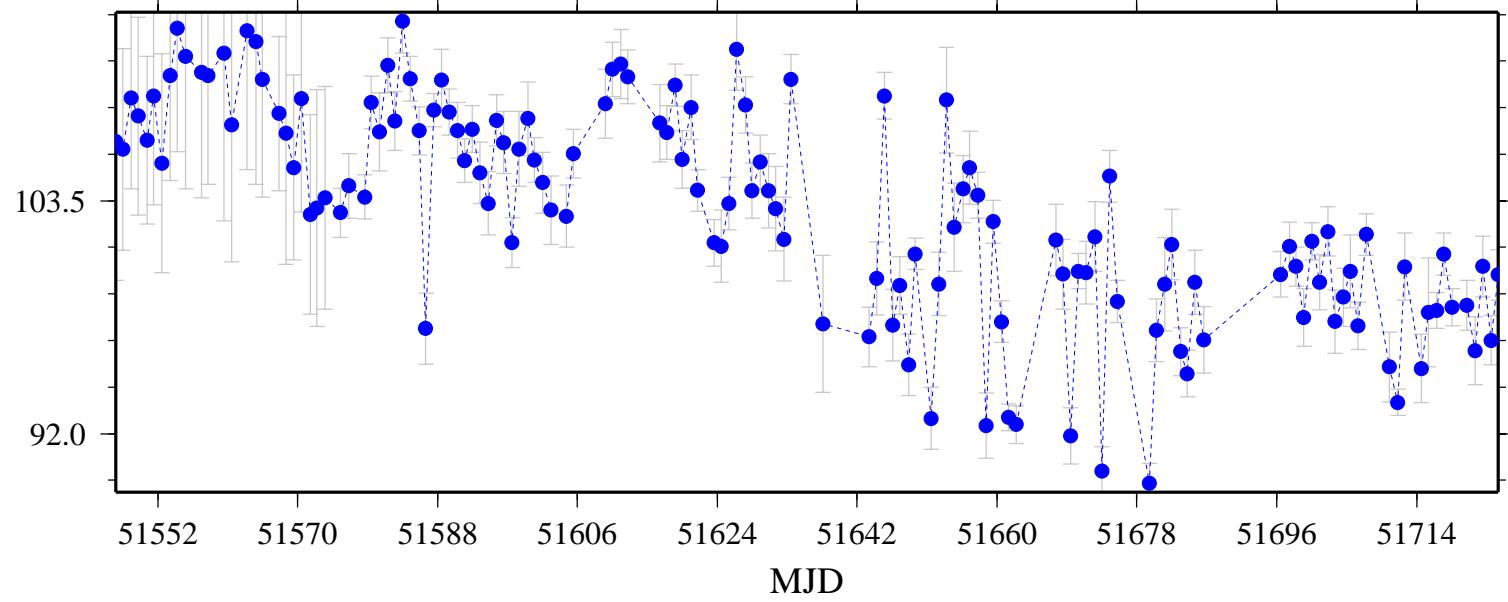
### USNO(b)-NPL (TW-CP)

NANOSECONDS



### USNO(b)-NPL (CV-CP)

NANOSECONDS



x and y-axes are same scale

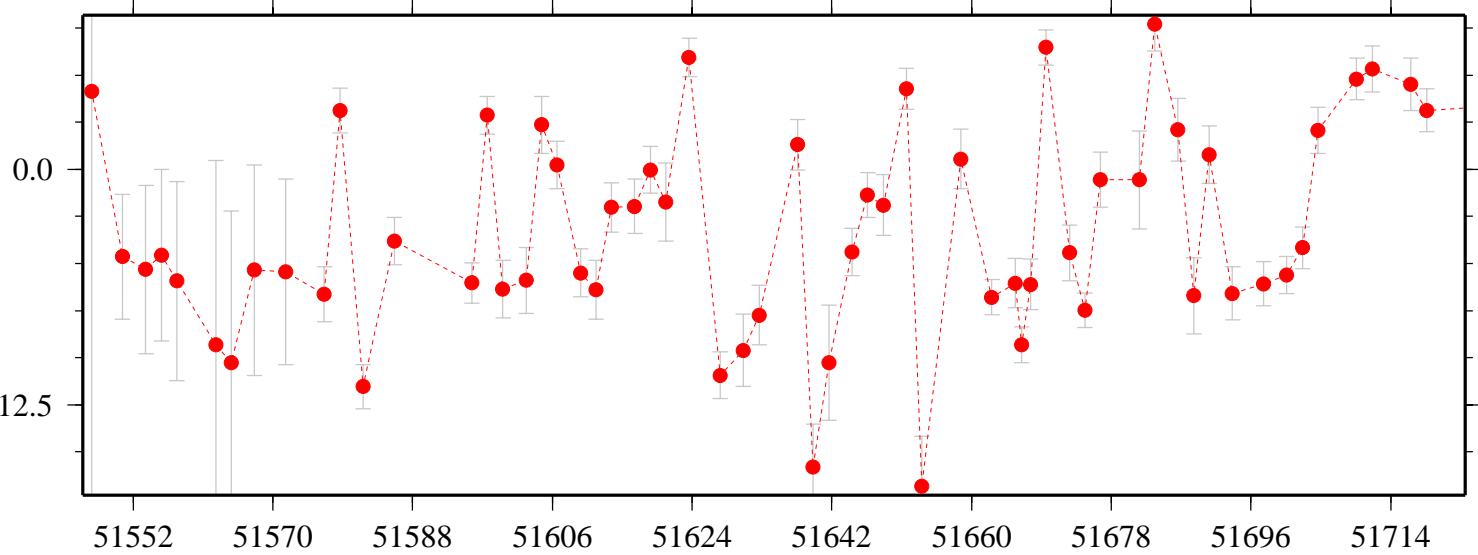
# USNO(b) - PTB

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51696.5000		-0.8							0.8	
51697.6160	-1.2	4.9	37.083	- 194.035CP	-6.1	-38.3	-32.2	0.7	1.0	0.035
51698.5000		3.6	35.769				-32.2		3.8	0.050
51699.5000		-0.3	37.645				-37.9		1.1	0.194
51700.6160	-0.2	5.4	37.239	+ 489.797CP	-5.6	-37.4	-31.8	0.6	0.7	0.015
51701.5000		0.0	38.309				-38.3		0.8	0.015
51702.6160	1.1	5.3	38.679	- 195.132CP	-4.2	-37.6	-33.4	0.6	0.9	0.018
51703.5000		0.0	37.896				-37.9		1.1	0.008
51704.6160	3.1	1.1	36.951		2.1	-33.8	-35.9	0.4	1.1	0.013
51705.5000		0.7	36.834				-36.1		1.0	0.020
51706.5000		-2.3	38.202				-40.5		0.8	0.016
51707.5000		5.5	38.609				-33.1		0.8	0.012
51708.5000		5.2	39.227				-34.0		1.1	0.022
51709.6160	5.2	0.5	38.662		4.8	-33.4	-38.2	0.5	1.0	0.014
51710.5000		1.3	38.497				-37.2		1.4	0.011
51711.6160	4.4	-1.0	38.961		5.3	-34.6	-39.9	0.5	1.1	0.019
51712.5000		4.2	38.159				-34.0		1.4	0.024
51713.5000		6.2							1.2	
51714.5000		3.0	36.786	+ 101.011CP			-33.8		1.4	0.027
51715.5000		-3.8							0.9	
51716.6160	3.7	-0.8	36.597		4.5	-32.9	-37.4	1.2	0.6	0.024
51717.5000		2.7	37.318				-34.6		1.1	0.034
51718.6160	3.3	0.2	35.016		3.1	-31.7	-34.9	0.5	1.0	0.036
51719.5000		-1.2							0.8	
51720.5000		-5.6	35.941				-41.5		0.9	0.058
51721.5000		-3.8	34.723				-38.5		1.3	0.055
51722.5000		-1.4	35.367				-36.8		1.0	0.017
51723.6160	-1.4	-4.7			3.3			0.6	0.6	
51724.5000		-3.1							0.8	

The **ADJUSTMENTS** column indicates any manual adjustments (e.g. calibration) that have been applied to either TW, CV, or CP data. In particular, since CP data is currently obtained from non-calibrated systems, arbitrary offsets are often applied to CP data to keep column widths small.

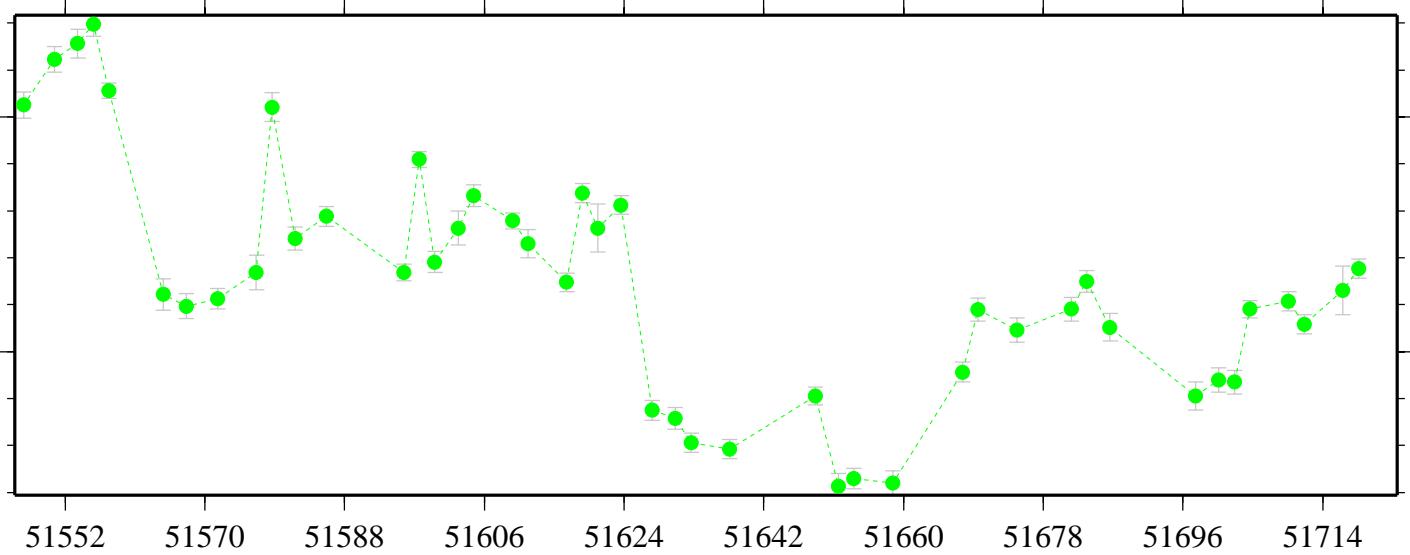
USNO(b)-PTB (TW-CV)

NANOSECONDS



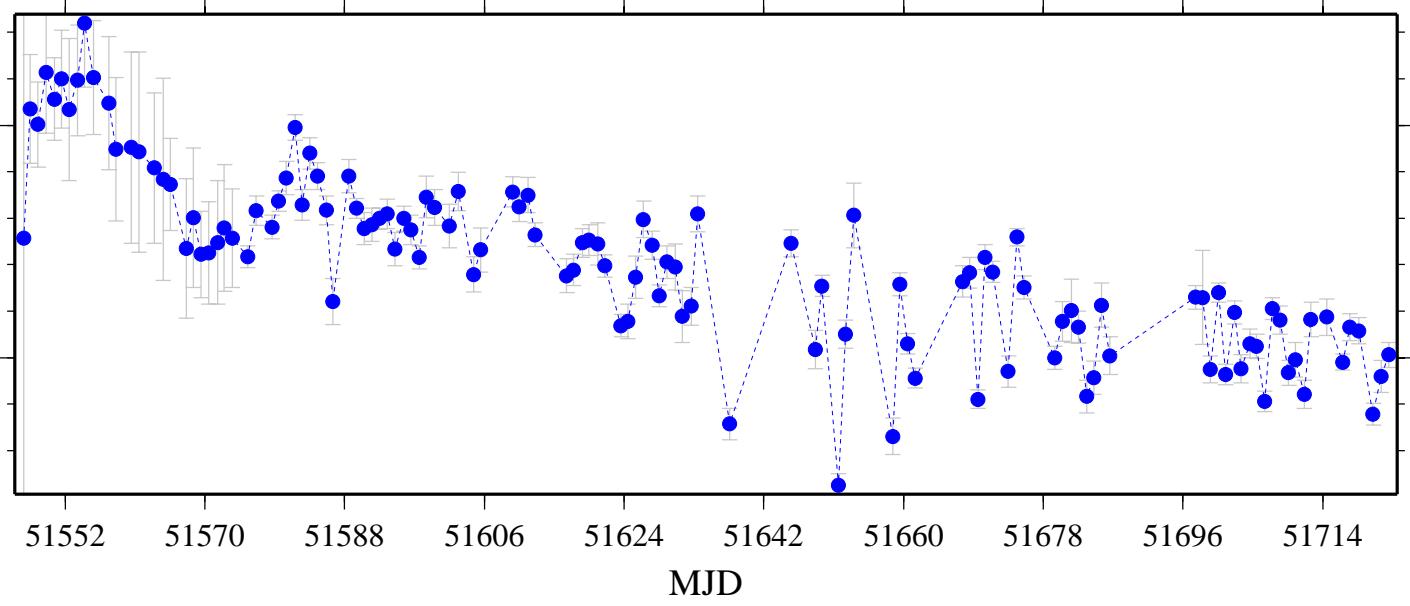
USNO(b)-PTB (TW-CP)

NANOSECONDS



USNO(b)-PTB (CV-CP)

NANOSECONDS



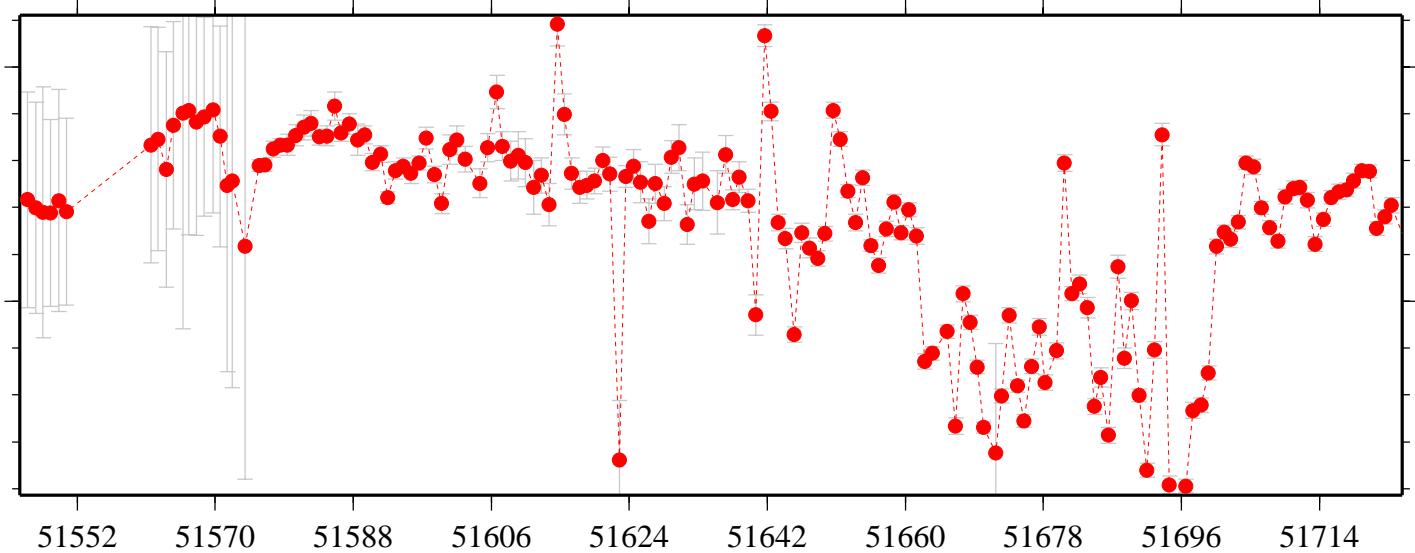
# USNO(c) - AMC

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51696.5768	0.7	-43.5	-1.990		44.2	2.7	-41.5	0.1	0.3	0.004
51697.5136	0.7	-46.9	-2.158		47.6	2.9	-44.7	0.2	0.3	0.004
51698.5559	1.0	-46.9	-2.195		47.8	3.1	-44.7	0.1	0.3	0.004
51699.5344	0.9	-48.4	-2.435		49.3	3.3	-46.0	0.1	0.3	0.003
51700.5552	0.0	-55.0	-2.759		55.0	2.7	-52.2	0.1	0.3	0.003
51701.5761	-0.9	-56.5	-2.906		55.6	2.0	-53.6	0.2	0.3	0.004
51702.4129	-0.9	-56.1	-2.853		55.3	2.0	-53.3	0.2	0.3	0.003
51703.4511	-0.8	-56.9	-2.862		56.1	2.0	-54.0	0.1	0.3	0.004
51704.4511	-0.5	-59.2	-2.481		58.7	1.9	-56.8	0.1	0.3	0.004
51705.4518	-0.8	-59.3	-2.201		58.5	1.4	-57.1	0.2	0.3	0.005
51706.4511	-0.3	-57.0	-1.956		56.7	1.6	-55.1	0.1	0.2	0.005
51707.4920	-0.2	-56.0			55.8			0.2	0.3	
51708.5768	-0.6	-55.8			55.2			0.1	0.3	
51709.5559	-0.1	-57.3			57.2			0.1	0.3	
51710.5761	-0.3	-57.8			57.6			0.1	0.3	
51711.4715	-0.6	-58.2			57.6			0.1	0.3	
51712.4719	-0.4	-57.5			57.0			0.1	0.3	
51713.4719	-0.3	-55.4	-2.190		55.1	1.8	-53.2	0.2	0.3	0.004
51714.5358	0.4	-55.7	-0.389	- 19.691 CP	56.2	0.8	-55.3	0.1	0.3	0.122
51715.5344	0.7	-56.5			57.2			0.1	0.3	
51716.5139	0.5	-56.9	1.081	+ 136.890 CP	57.4	-0.6	-58.0	0.1	0.3	0.006
51717.5351	0.1	-57.4	0.602		57.5	-0.5	-58.0	0.1	0.3	0.004
51718.4733	0.8	-57.1	0.578		57.9	0.2	-57.7	0.1	0.3	0.002
51719.5344	0.5	-57.8			58.3			0.1	0.3	
51720.5139	0.1	-58.3			58.3			0.1	0.3	
51721.4945	-0.6	-56.3	0.841	+ 832.524 CP	55.8	-1.4	-57.2	0.1	0.3	0.004
51722.5347	-0.8	-57.1	0.596		56.3	-1.4	-57.7	0.1	0.3	0.003
51723.4094	-0.8	-57.6	0.633		56.8	-1.4	-58.3	0.2	0.3	0.003
51724.8059	-0.7	-56.3	0.717		55.5	-1.4	-57.0	0.3	0.3	0.003

The **ADJUSTMENTS** column indicates any manual adjustments (e.g. calibration) that have been applied to either TW, CV, or CP data. In particular, since CP data is currently obtained from non-calibrated systems, arbitrary offsets are often applied to CP data to keep column widths small.

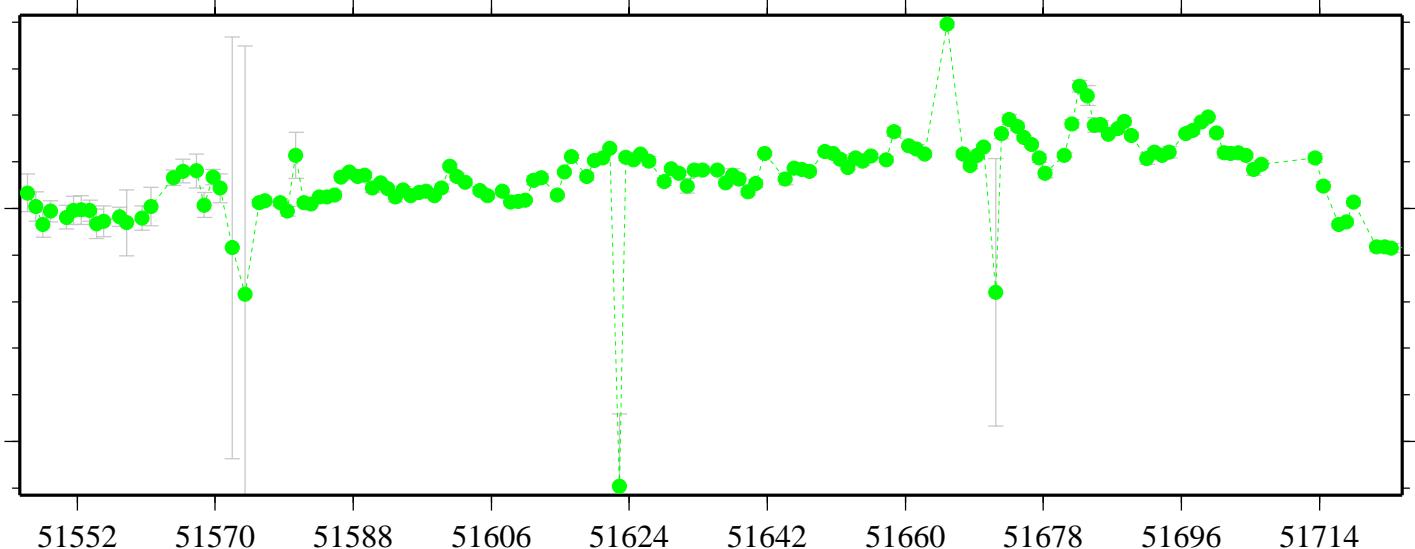
### USNO(c)-AMC (TW-CV)

NANOSECONDS



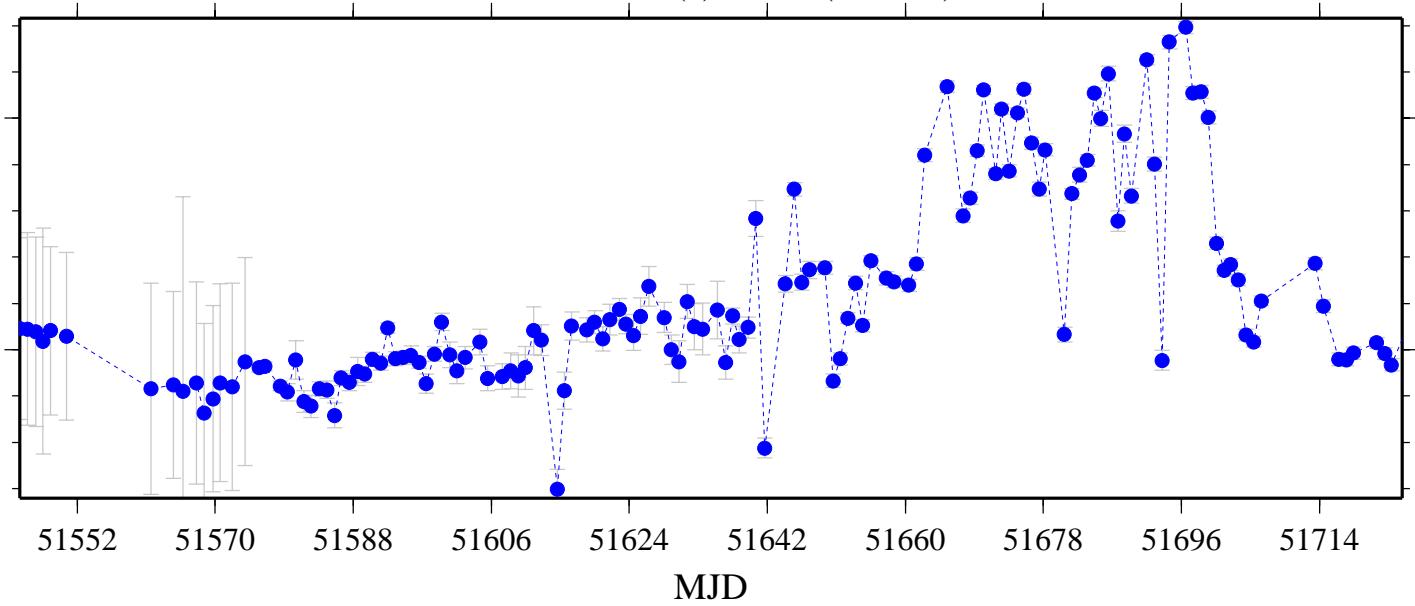
### USNO(c)-AMC (TW-CP)

NANOSECONDS



### USNO(c)-AMC (CV-CP)

NANOSECONDS



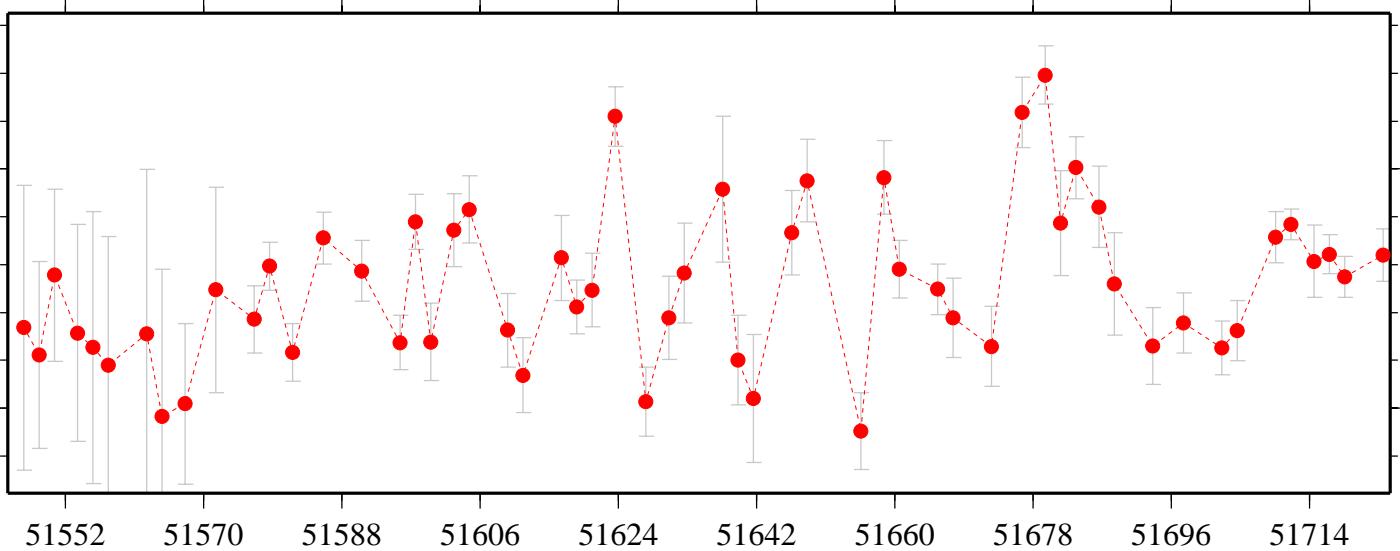
# USNO(d) - NPL

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51696.5000		7.7	-92.962				100.7		1.1	0.009
51697.6097	2.1	9.5	-92.326		-7.4	94.4	101.8	0.8	1.2	0.008
51698.5000		8.7	-91.753				100.5		1.0	0.010
51699.5000		6.8	-91.423				98.2		1.4	0.006
51700.5000		10.8	-91.249				102.0		0.9	0.005
51701.5000		8.9	-91.156				100.0		1.3	0.008
51702.6097	3.2	11.8	-90.768		-8.6	94.0	102.6	0.4	1.2	0.005
51703.5000		7.8	-90.274				98.1		1.6	0.004
51704.6097	1.6	9.4	-89.100		-7.8	90.7	98.5	0.3	1.4	0.006
51705.5000		10.8	-88.500				99.3		1.8	0.005
51706.5000		8.3	-88.078				96.4		1.2	0.006
51707.5000		13.1							1.0	
51708.5000		13.3							1.2	
51709.6097	5.8	9.1			-3.3			0.3	1.2	
51710.5000		9.8							1.7	
51711.6097	5.2	7.9			-2.7			0.4	0.6	
51712.5000		13.9							1.7	
51713.5000		14.9	-85.427				100.3		1.1	0.008
51714.6097	4.3	8.7	-83.880	- 19.721CP	-4.4	88.1	92.6	0.4	1.7	0.123
51715.5000		11.0							2.7	
51716.6097	6.7	10.8	-82.798	- 9.666CP	-4.1	89.5	93.6	0.3	0.9	0.008
51717.5000		14.0	-83.424				97.4		1.0	0.006
51718.6097	6.5	11.7	-83.806		-5.2	90.3	95.5	0.3	0.9	0.004
51719.5000		14.2	-83.787				98.0		0.7	0.004
51720.5000		12.2	-83.668				95.9		1.2	0.004
51721.5000		10.4	-83.466				93.8		1.7	0.004
51722.5000		14.6	-83.293				97.9		1.5	0.004
51723.6097	6.8	10.9	-83.151		-4.1	89.9	94.1	0.4	1.2	0.003
51724.5000		14.3	-83.174				97.4		1.2	0.004

The **ADJUSTMENTS** column indicates any manual adjustments (e.g. calibration) that have been applied to either TW, CV, or CP data. In particular, since CP data is currently obtained from non-calibrated systems, arbitrary offsets are often applied to CP data to keep column widths small.

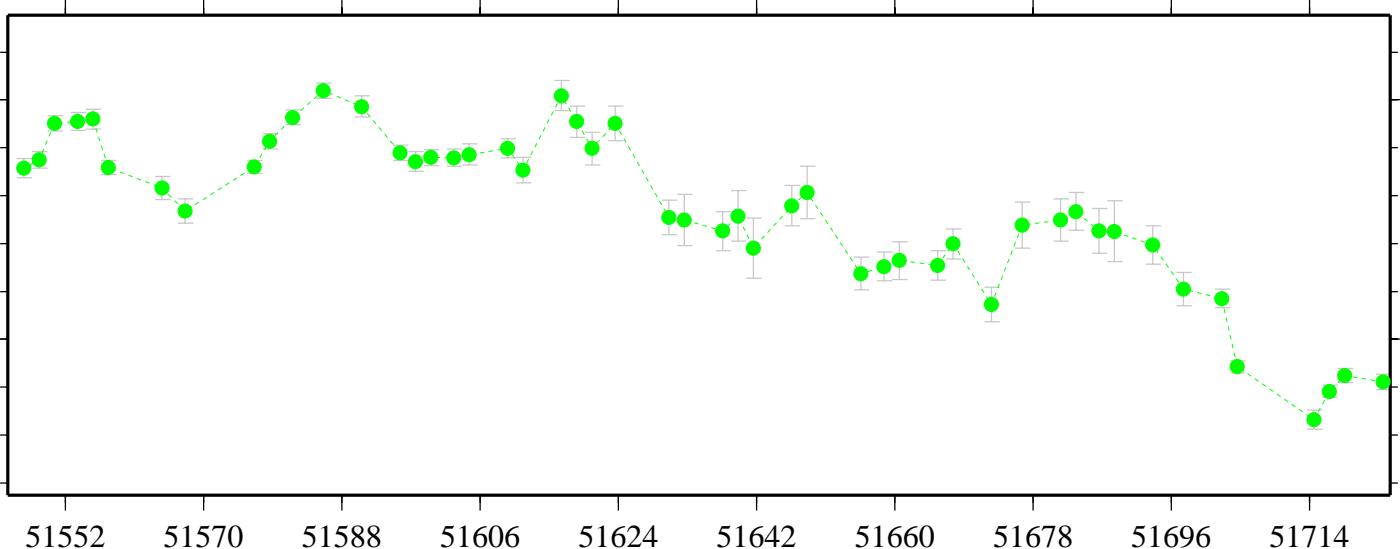
### USNO(d)-NPL (TW-CV)

NANOSECONDS



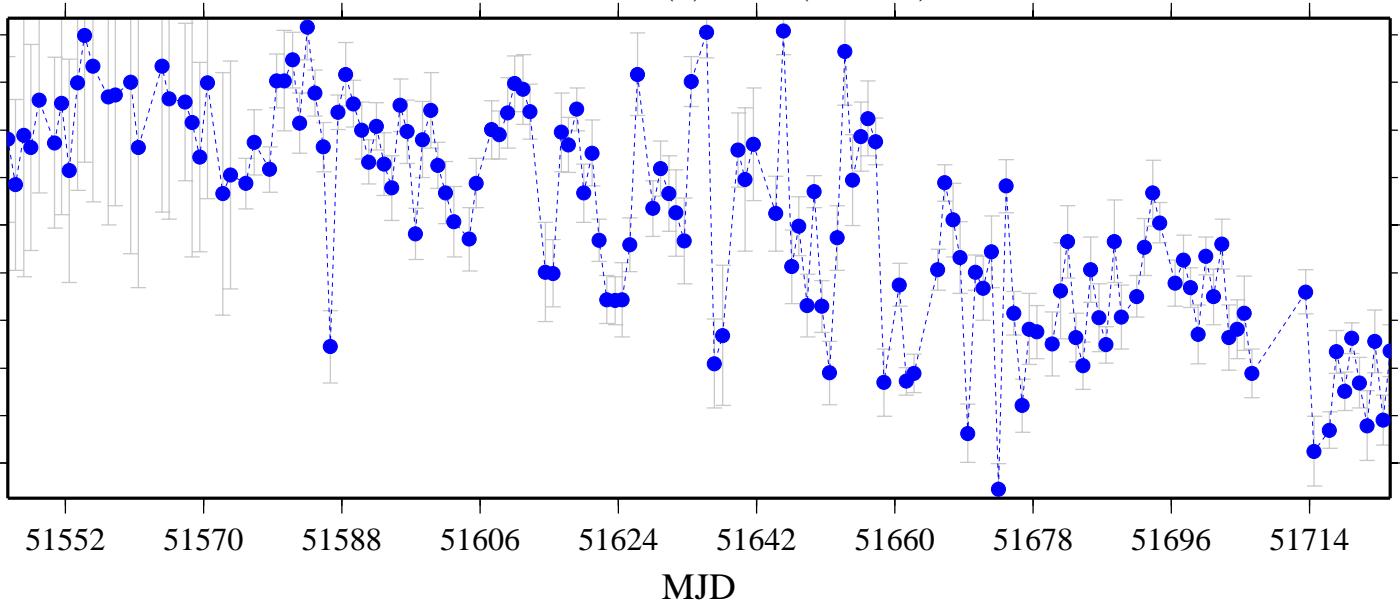
### USNO(d)-NPL (TW-CP)

NANOSECONDS



### USNO(d)-NPL (CV-CP)

NANOSECONDS



x and y-axes are same scale

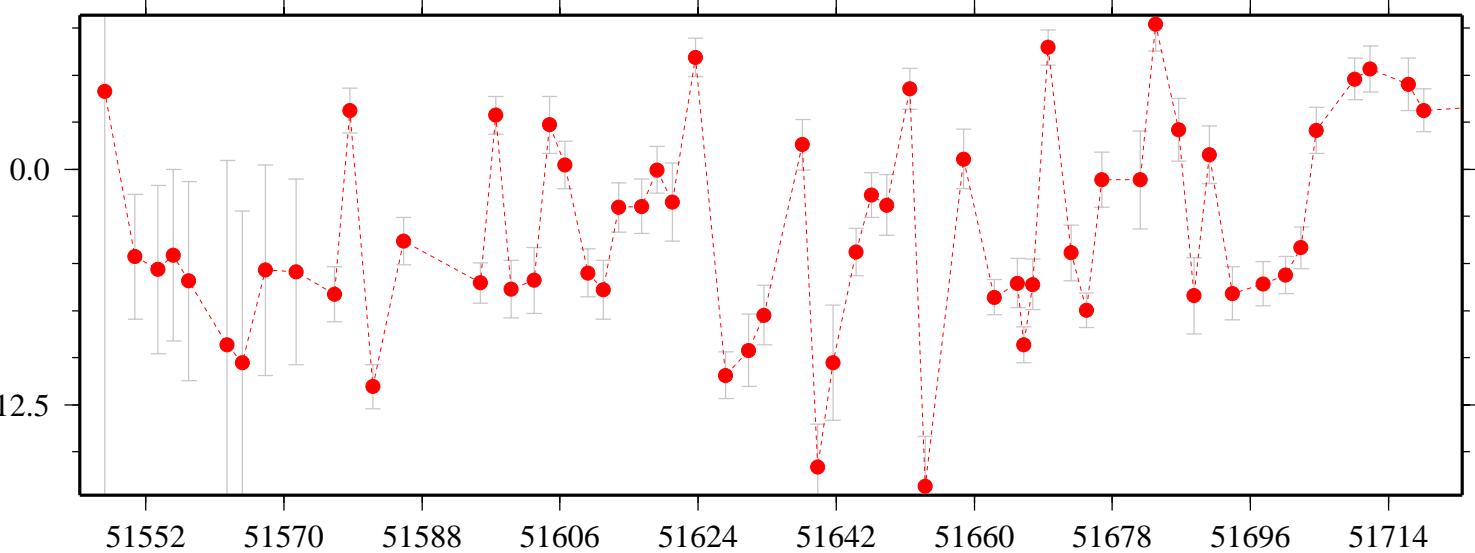
# USNO(d) - PTB

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51696.5000		-0.8							0.8	
51697.6160	-1.2	4.9	28.793	- 2.401CP	-6.1	-30.0	-23.9	0.7	1.0	0.038
51698.5000		3.6	27.626				-24.1		3.8	0.050
51699.5000		-0.3	28.981				-29.3		1.1	0.194
51700.6160	-0.2	5.4	27.777		-5.6	-28.0	-22.4	0.6	0.7	0.015
51701.5000		0.0	28.704				-28.7		0.8	0.019
51702.6160	1.1	5.3	27.251	- 0.123CP	-4.2	-26.1	-22.0	0.6	0.9	0.025
51703.5000		0.0	26.199				-26.2		1.1	0.009
51704.6160	3.1	1.1	25.751		2.1	-22.6	-24.7	0.4	1.1	0.020
51705.5000		0.7	26.988				-26.2		1.0	0.018
51706.5000		-2.3	28.913				-31.2		0.8	0.015
51707.5000		5.5							0.8	
51708.5000		5.2							1.1	
51709.6160	5.2	0.5			4.8			0.5	1.0	
51710.5000		1.3							1.4	
51711.6160	4.4	-1.0			5.3			0.5	1.1	
51712.5000		4.2							1.4	
51713.5000		6.2	27.540				-21.4		1.2	0.020
51714.5000		3.0	26.912	- 19.791CP			-23.9		1.4	0.131
51715.5000		-3.8							0.9	
51716.6160	3.7	-0.8	28.193	- 9.109CP	4.5	-24.5	-29.0	1.2	0.6	0.028
51717.5000		2.7	28.111				-25.4		1.1	0.034
51718.6160	3.3	0.2	24.846		3.1	-21.6	-24.7	0.5	1.0	0.034
51719.5000		-1.2	25.415				-26.6		0.8	0.010
51720.5000		-5.6	25.741				-31.3		0.9	0.058
51721.5000		-3.8	24.516				-28.3		1.3	0.058
51722.5000		-1.4	25.165				-26.6		1.0	0.018
51723.6160	-1.4	-4.7			3.3			0.6	0.6	
51724.5000		-3.1							0.8	

The **ADJUSTMENTS** column indicates any manual adjustments (e.g. calibration) that have been applied to either TW, CV, or CP data. In particular, since CP data is currently obtained from non-calibrated systems, arbitrary offsets are often applied to CP data to keep column widths small.

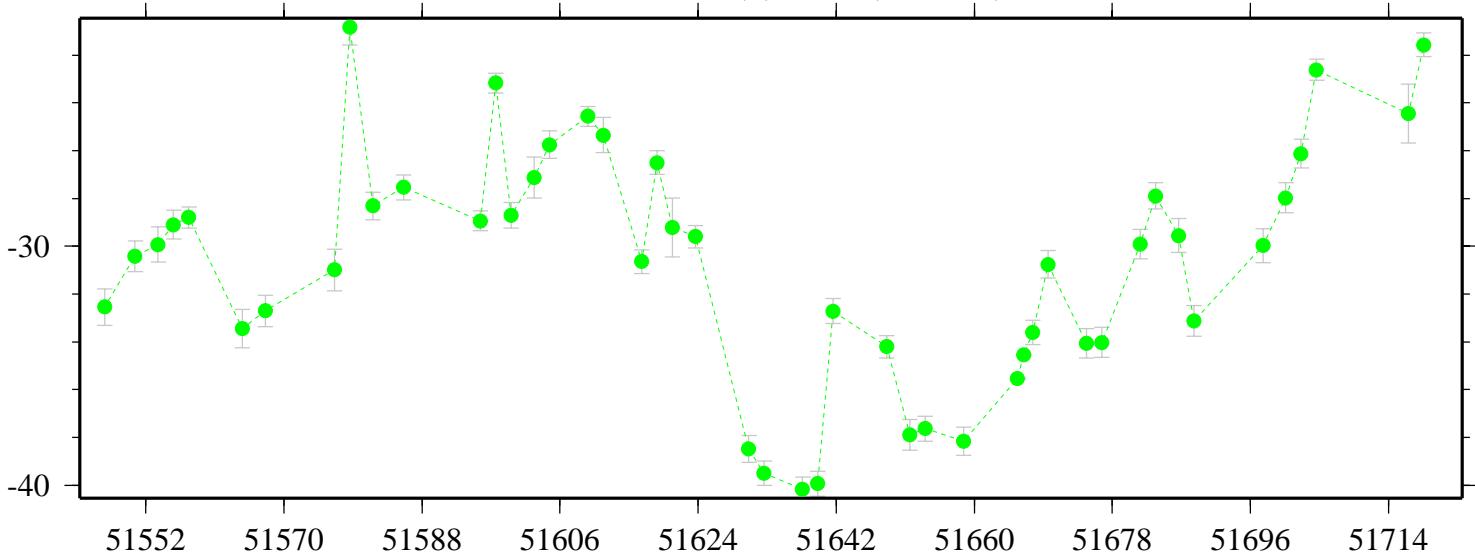
USNO(d)-PTB (TW-CV)

NANOSECONDS



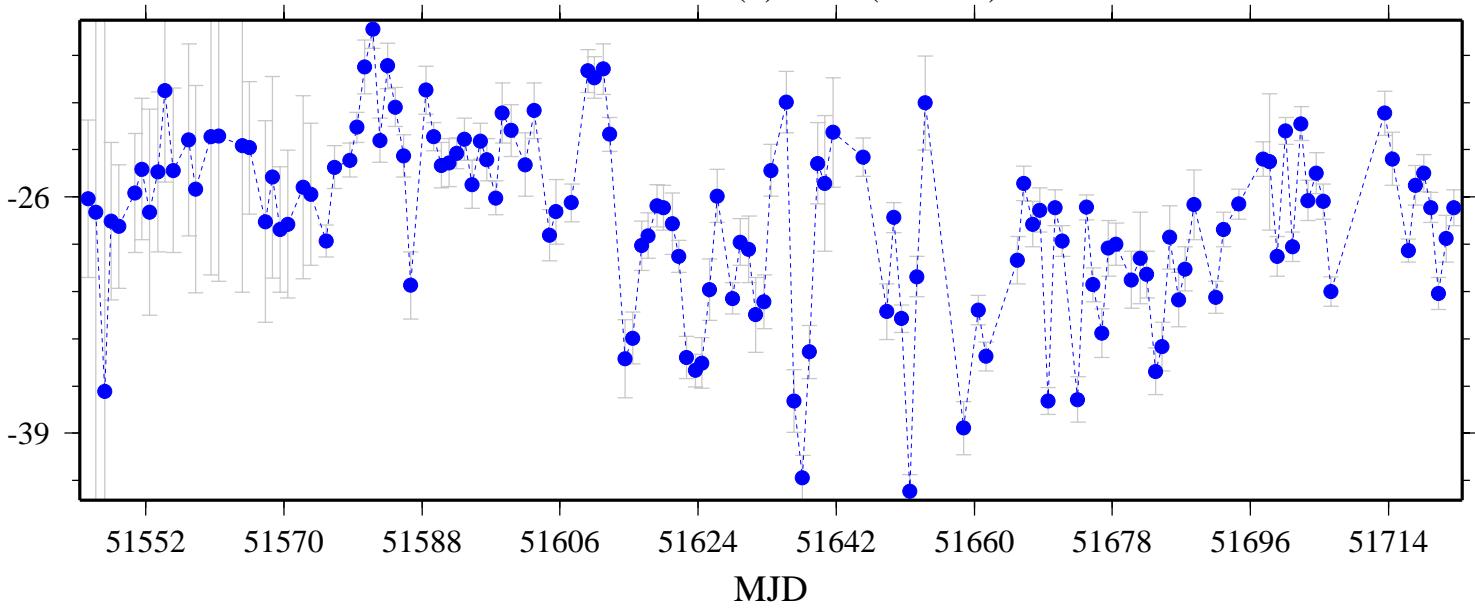
USNO(d)-PTB (TW-CP)

NANOSECONDS



USNO(d)-PTB (CV-CP)

NANOSECONDS



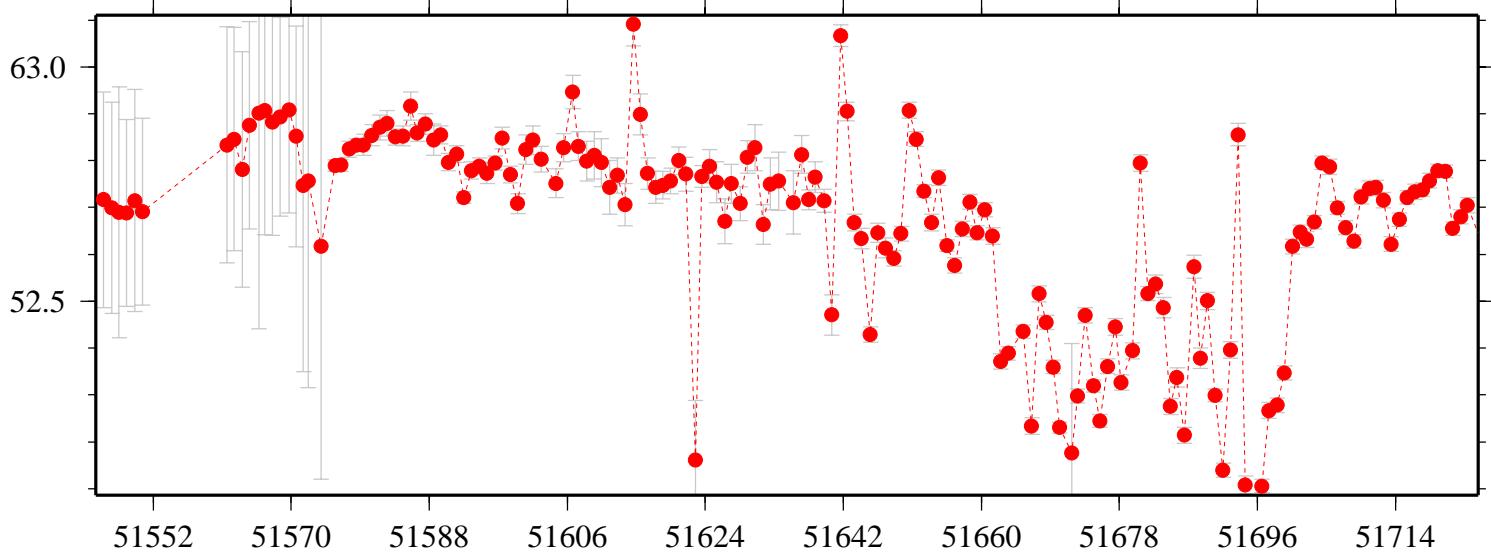
# USNO(e) - AMC

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51696.5768	0.7	-43.5	11.312	+ 631837.135CP	44.2	-10.6	-54.8	0.1	0.3	0.005
51697.5136	0.7	-46.9	11.213		47.6	-10.5	-58.1	0.2	0.3	0.005
51698.5559	1.0	-46.9	11.101		47.8	-10.1	-58.0	0.1	0.3	0.005
51699.5344	0.9	-48.4	10.838		49.3	-9.9	-59.2	0.1	0.3	0.003
51700.5552	0.0	-55.0	10.553		55.0	-10.6	-65.5	0.1	0.3	0.003
51701.5761	-0.9	-56.5	10.413		55.6	-11.3	-66.9	0.2	0.3	0.004
51702.4129	-0.9	-56.1	10.351		55.3	-11.2	-66.5	0.2	0.3	0.004
51703.4511	-0.8	-56.9	10.117		56.1	-11.0	-67.0	0.1	0.3	0.002
51704.4511	-0.5	-59.2	10.260		58.7	-10.8	-69.5	0.1	0.3	0.003
51705.4518	-0.8	-59.3	10.327		58.5	-11.1	-69.6	0.2	0.3	0.003
51706.4511	-0.3	-57.0	10.333		56.7	-10.7	-67.4	0.1	0.2	0.004
51707.4920	-0.2	-56.0	10.297		55.8	-10.5	-66.3	0.2	0.3	0.005
51708.5768	-0.6	-55.8	10.352		55.2	-11.0	-66.2	0.1	0.3	0.003
51709.5559	-0.1	-57.3	10.330		57.2	-10.5	-67.6	0.1	0.3	0.002
51710.5761	-0.3	-57.8	10.371		57.6	-10.7	-68.2	0.1	0.3	0.003
51711.4715	-0.6	-58.2	10.430		57.6	-11.1	-68.7	0.1	0.3	0.002
51712.4719	-0.4	-57.5	10.389		57.0	-10.8	-67.8	0.1	0.3	0.005
51713.4719	-0.3	-55.4	10.626		55.1	-11.0	-66.0	0.2	0.3	0.004
51714.5358	0.4	-55.7	10.963		56.2	-10.5	-66.7	0.1	0.3	0.003
51715.5344	0.7	-56.5	11.116	+ 146.416CP	57.2	-10.4	-67.6	0.1	0.3	0.005
51716.5139	0.5	-56.9	11.077		57.4	-10.6	-68.0	0.1	0.3	0.005
51717.5351	0.1	-57.4	10.569		57.5	-10.5	-68.0	0.1	0.3	0.004
51718.4733	0.8	-57.1	10.448		57.9	-9.6	-67.5	0.1	0.3	0.003
51719.5344	0.5	-57.8	12.564		58.3	-12.0	-70.4	0.1	0.3	Inf
51720.5139	0.1	-58.3			58.3			0.1	0.3	
51721.4945	-0.6	-56.3	10.249	+ 832.320CP	55.8	-10.8	-66.6	0.1	0.3	0.004
51722.5347	-0.8	-57.1	10.136	- 0.061CP	56.3	-10.9	-67.2	0.1	0.3	0.003
51723.4094	-0.8	-57.6	10.204		56.8	-11.0	-67.8	0.2	0.3	0.003
51724.8059	-0.7	-56.3	10.198		55.5	-10.9	-66.5	0.3	0.3	0.004

The ADJUSTMENTS column indicates any manual adjustments (e.g. calibration) that have been applied to either TW, CV, or CP data. In particular, since CP data is currently obtained from non-calibrated systems, arbitrary offsets are often applied to CP data to keep column widths small.

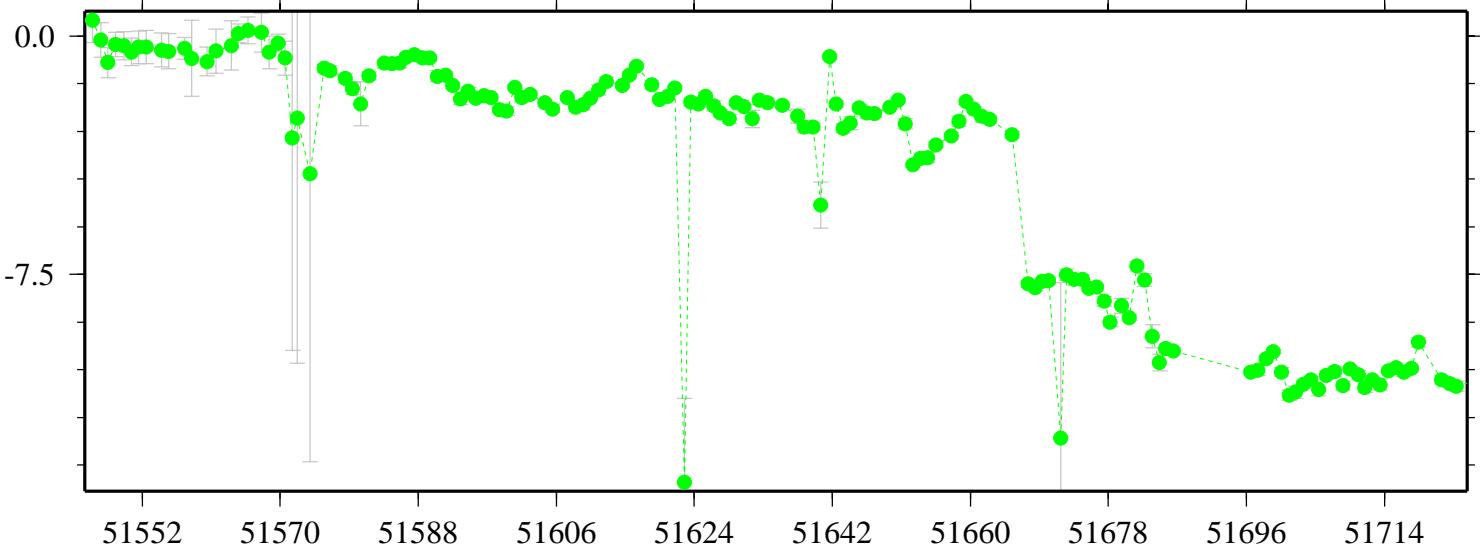
### USNO(e)-AMC (TW-CV)

NANOSECONDS



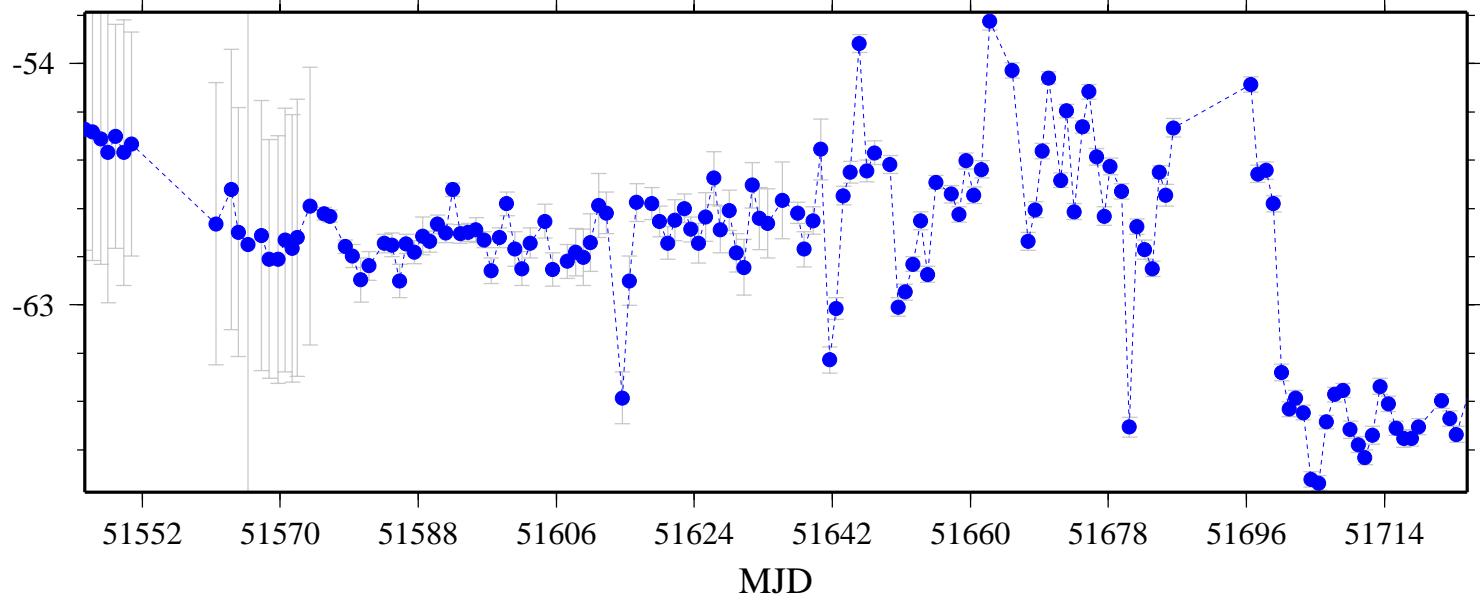
### USNO(e)-AMC (TW-CP)

NANOSECONDS



### USNO(e)-AMC (CV-CP)

NANOSECONDS



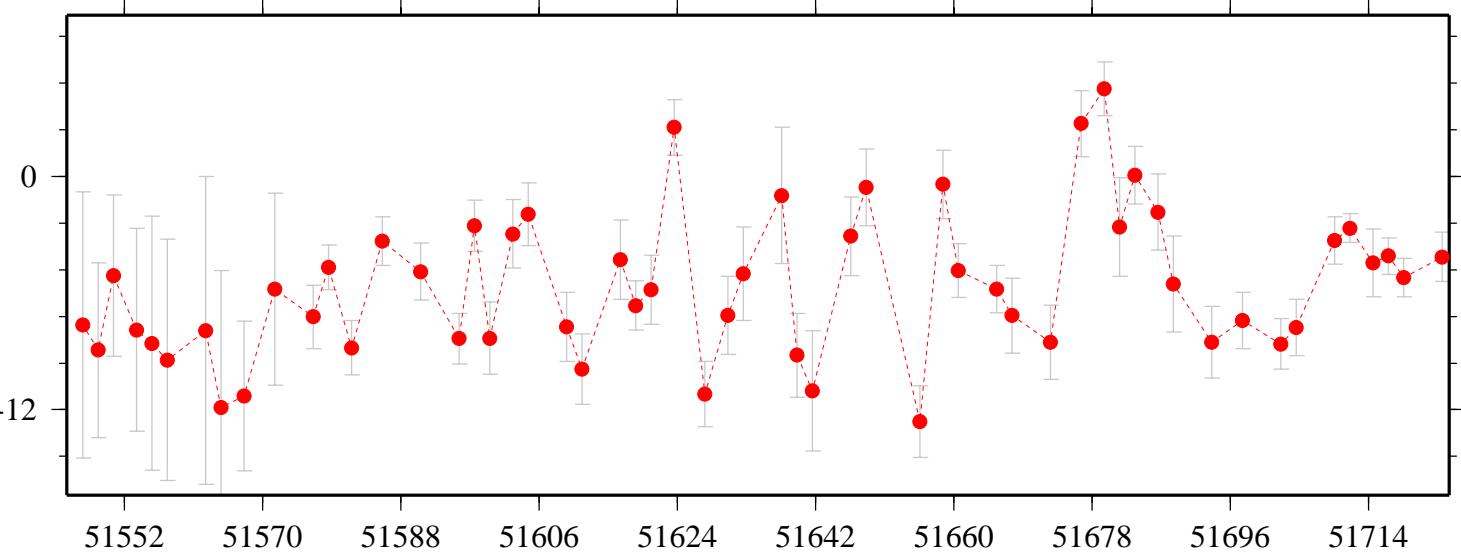
# USNO(f) - NPL

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51696.5000		7.7	-91.039	+ 631198.932 <sub>CP</sub>			98.8		1.1	0.010
51697.6097	2.1	9.5	-90.520		-7.4	92.6	100.0	0.8	1.2	0.009
51698.5000		8.7	-90.144				98.9		1.0	0.011
51699.5000		6.8	-89.958				96.8		1.4	0.006
51700.5000		10.8	-89.767				100.5		0.9	0.005
51701.5000		8.9	-89.529				98.4		1.3	0.008
51702.6097	3.2	11.8	-89.129		-8.6	92.3	100.9	0.4	1.2	0.005
51703.5000		7.8	-88.826				96.6		1.6	0.005
51704.6097	1.6	9.4	-88.041		-7.8	89.6	97.4	0.3	1.4	0.006
51705.5000		10.8	-87.740				98.5		1.8	0.006
51706.5000		8.3	-87.625				95.9		1.2	0.007
51707.5000		13.1	-87.316				100.4		1.0	0.006
51708.5000		13.3							1.2	
51709.6097	5.8	9.1			-3.3			0.3	1.2	
51710.5000		9.8	-84.221				94.0		1.7	0.007
51711.6097	5.2	7.9	-84.328		-2.7	89.6	92.2	0.4	0.6	0.006
51712.5000		13.9	-84.506				98.5		1.7	0.008
51713.5000		14.9	-84.614				99.5		1.1	0.009
51714.6097	4.3	8.7	-84.619		-4.4	88.9	93.3	0.4	1.7	0.006
51715.5000		11.0	-84.221				95.2		2.7	0.007
51716.6097	6.7	10.8	-84.442		-4.1	91.1	95.2	0.3	0.9	0.008
51717.5000		14.0	-85.029				99.0		1.0	0.007
51718.6097	6.5	11.7	-85.287		-5.2	91.8	97.0	0.3	0.9	0.004
51719.5000		14.2	-85.485				99.7		0.7	0.004
51720.5000		12.2							1.2	
51721.5000		10.4	-85.259				95.6		1.7	0.005
51722.5000		14.6	-85.090	+ 0.075 <sub>CP</sub>			99.7		1.5	0.006
51723.6097	6.8	10.9	-85.038		-4.1	91.8	96.0	0.4	1.2	0.004
51724.5000		14.3	-85.136				99.4		1.2	0.005

The **ADJUSTMENTS** column indicates any manual adjustments (e.g. calibration) that have been applied to either TW, CV, or CP data. In particular, since CP data is currently obtained from non-calibrated systems, arbitrary offsets are often applied to CP data to keep column widths small.

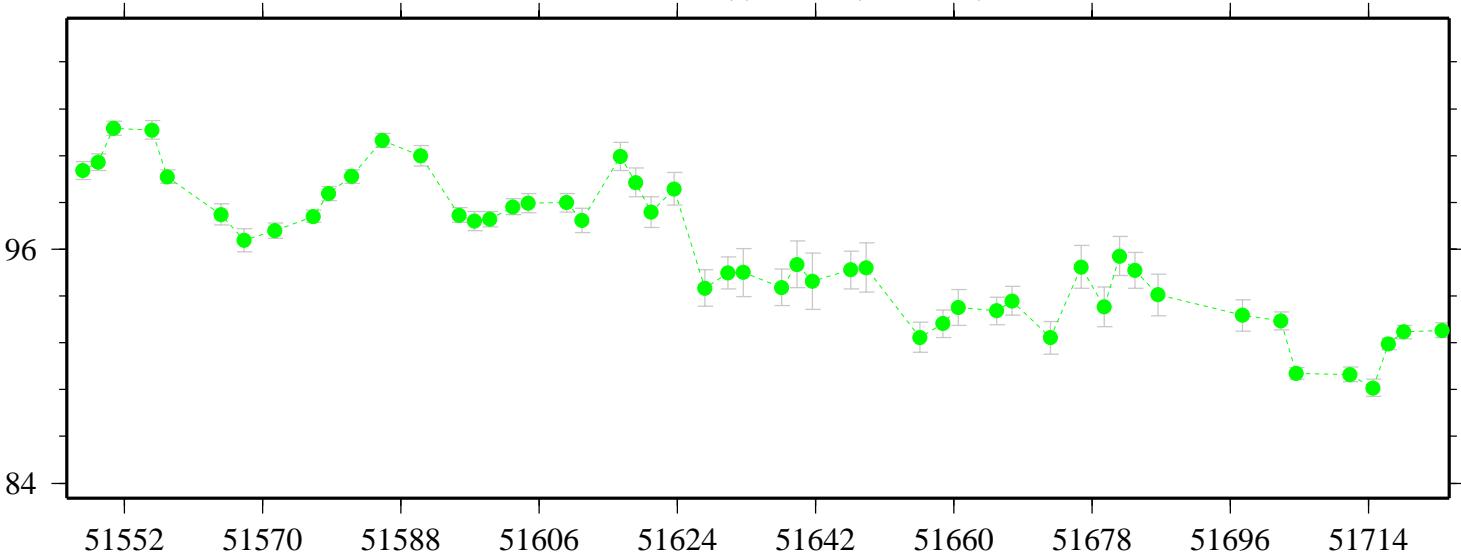
### USNO(f)-NPL (TW-CV)

NANOSECONDS



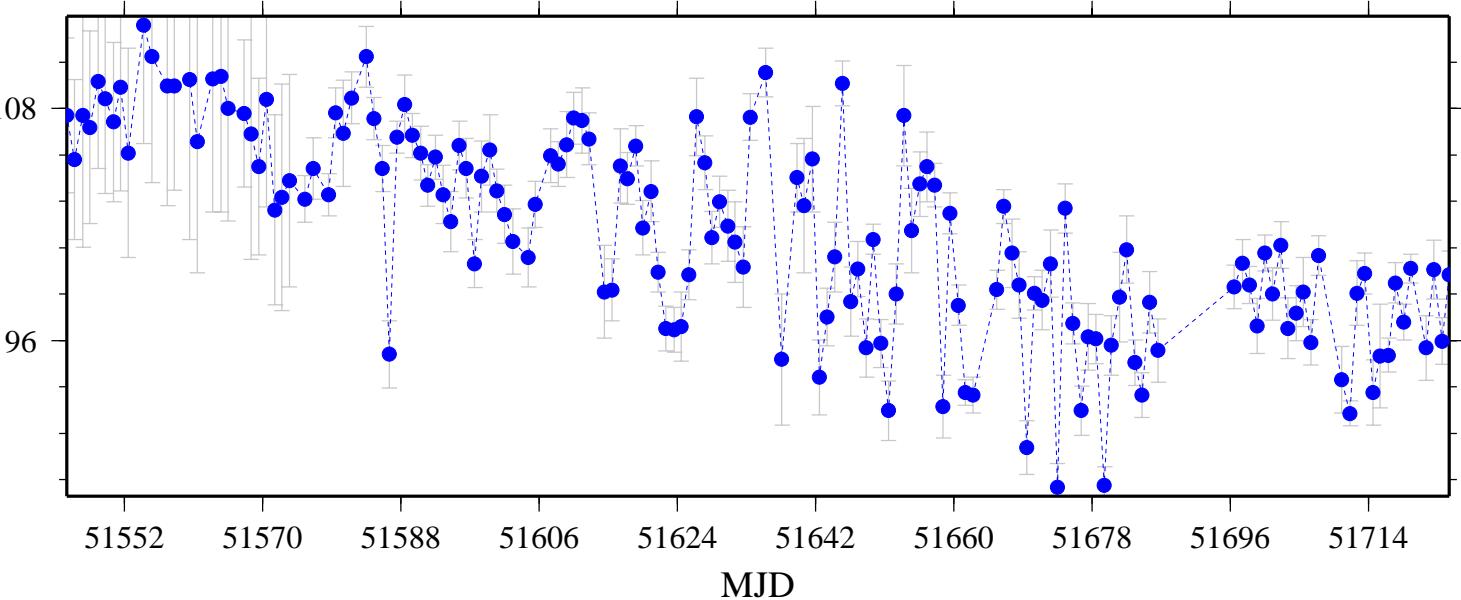
### USNO(f)-NPL (TW-CP)

NANOSECONDS



### USNO(f)-NPL (CV-CP)

NANOSECONDS



x and y-axes are same scale

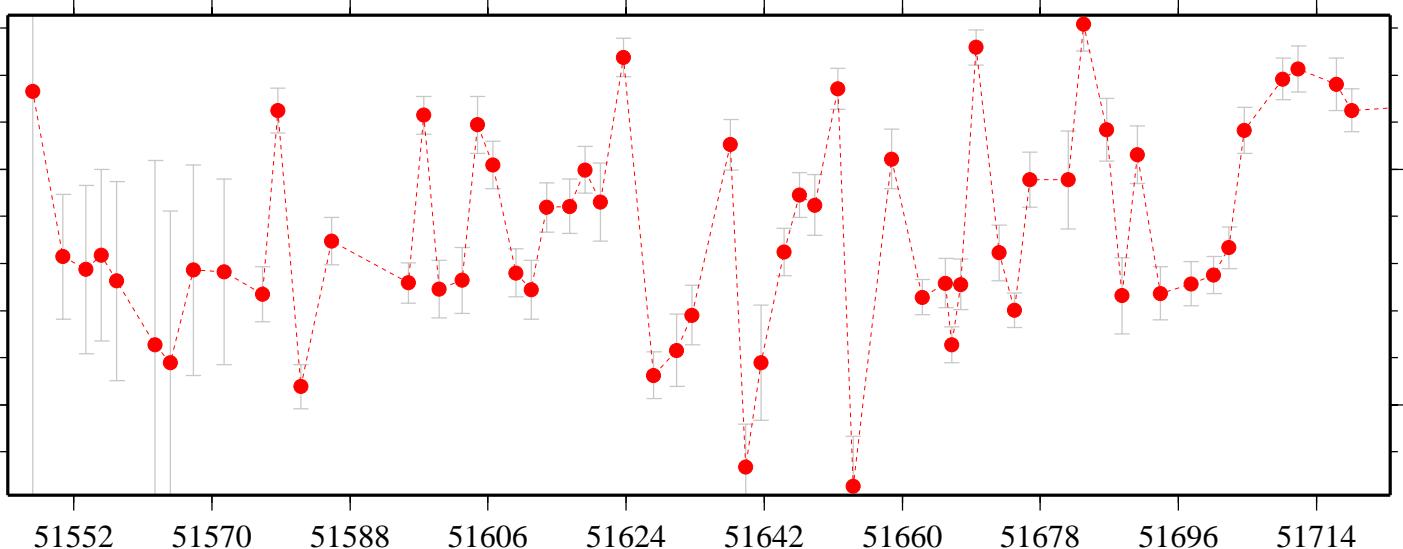
# USNO(f) - PTB

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51696.5000		-0.8							0.8	
51697.6160	-1.2	4.9	32.196	+ 631199.059CP	-6.1	-33.4	-27.3	0.7	1.0	0.038
51698.5000		3.6	31.046				-27.5		3.8	0.050
51699.5000		-0.3	32.531				-32.8		1.1	0.194
51700.6160	-0.2	5.4	31.457		-5.6	-31.7	-26.0	0.6	0.7	0.015
51701.5000		0.0	32.532				-32.6		0.8	0.018
51702.6160	1.1	5.3	31.227	- 0.135CP	-4.2	-30.1	-25.9	0.6	0.9	0.023
51703.5000		0.0	30.236				-30.2		1.1	0.008
51704.6160	3.1	1.1	29.292		2.1	-26.2	-28.2	0.4	1.1	0.022
51705.5000		0.7	29.782				-29.0		1.0	0.020
51706.5000		-2.3	31.065				-33.4		0.8	0.015
51707.5000		5.5	31.491				-26.0		0.8	0.012
51708.5000		5.2	32.248				-27.0		1.1	0.026
51709.6160	5.2	0.5	31.399		4.8	-26.2	-30.9	0.5	1.0	0.014
51710.5000		1.3	31.246				-29.9		1.4	0.011
51711.6160	4.4	-1.0	31.707		5.3	-27.3	-32.7	0.5	1.1	0.018
51712.5000		4.2	31.385				-27.2		1.4	0.023
51713.5000		6.2	30.000				-23.8		1.2	0.019
51714.5000		3.0	28.664				-25.6		1.4	0.021
51715.5000		-3.8							0.9	
51716.6160	3.7	-0.8	28.388		4.5	-24.7	-29.2	1.2	0.6	0.028
51717.5000		2.7	28.136				-25.4		1.1	0.035
51718.6160	3.3	0.2	25.249		3.1	-22.0	-25.1	0.5	1.0	0.037
51719.5000		-1.2	25.267				-26.4		0.8	0.010
51720.5000		-5.6							0.9	
51721.5000		-3.8	23.897	- 0.253CP			-27.7		1.3	0.055
51722.5000		-1.4	24.543	- 0.066CP			-26.0		1.0	0.017
51723.6160	-1.4	-4.7			3.3			0.6	0.6	
51724.5000		-3.1							0.8	

The **ADJUSTMENTS** column indicates any manual adjustments (e.g. calibration) that have been applied to either TW, CV, or CP data. In particular, since CP data is currently obtained from non-calibrated systems, arbitrary offsets are often applied to CP data to keep column widths small.

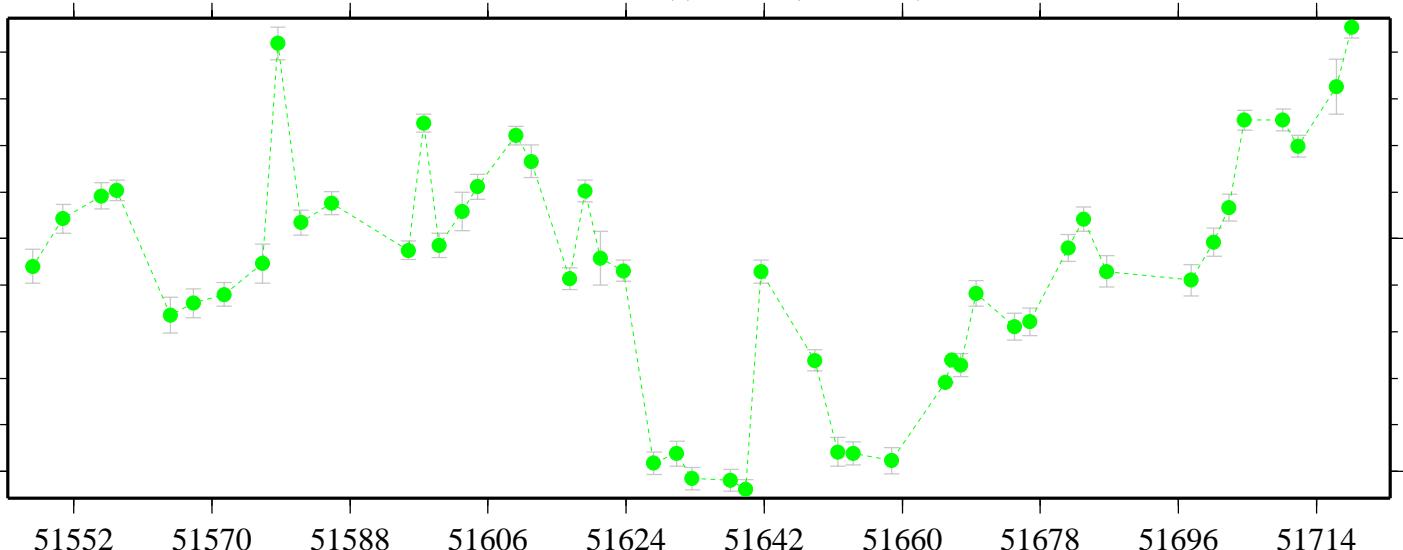
USNO(f)-PTB (TW-CV)

NANOSECONDS



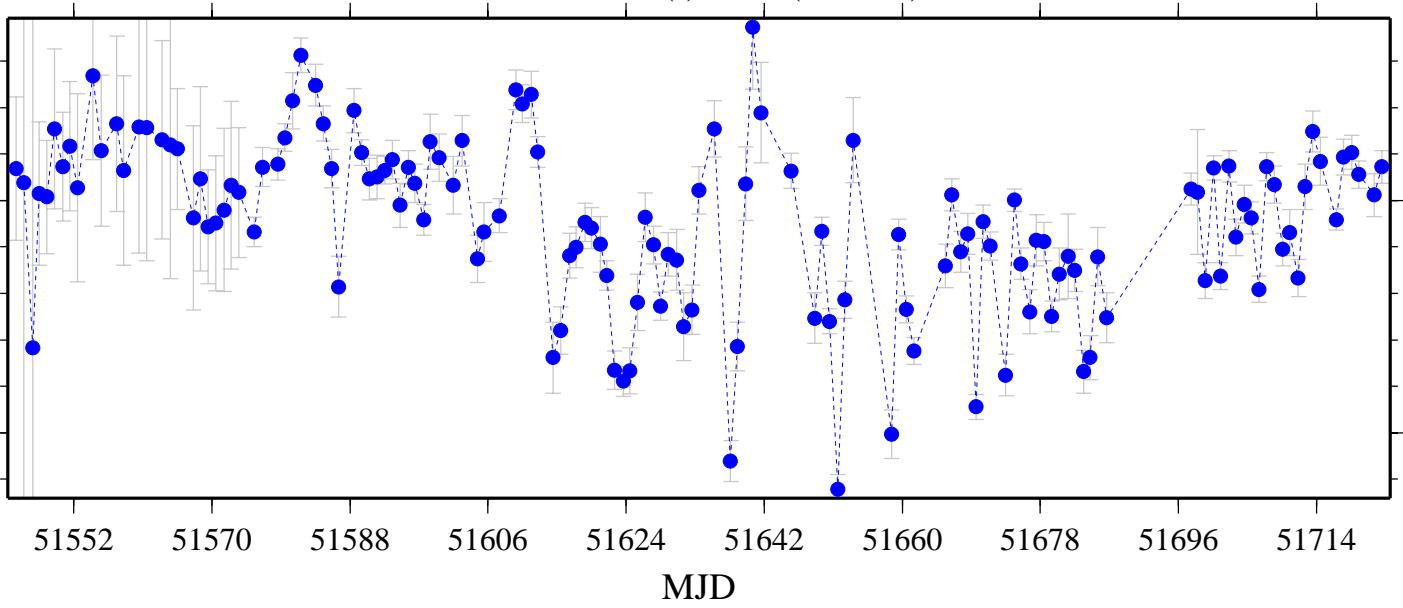
USNO(f)-PTB (TW-CP)

NANOSECONDS



USNO(f)-PTB (CV-CP)

NANOSECONDS

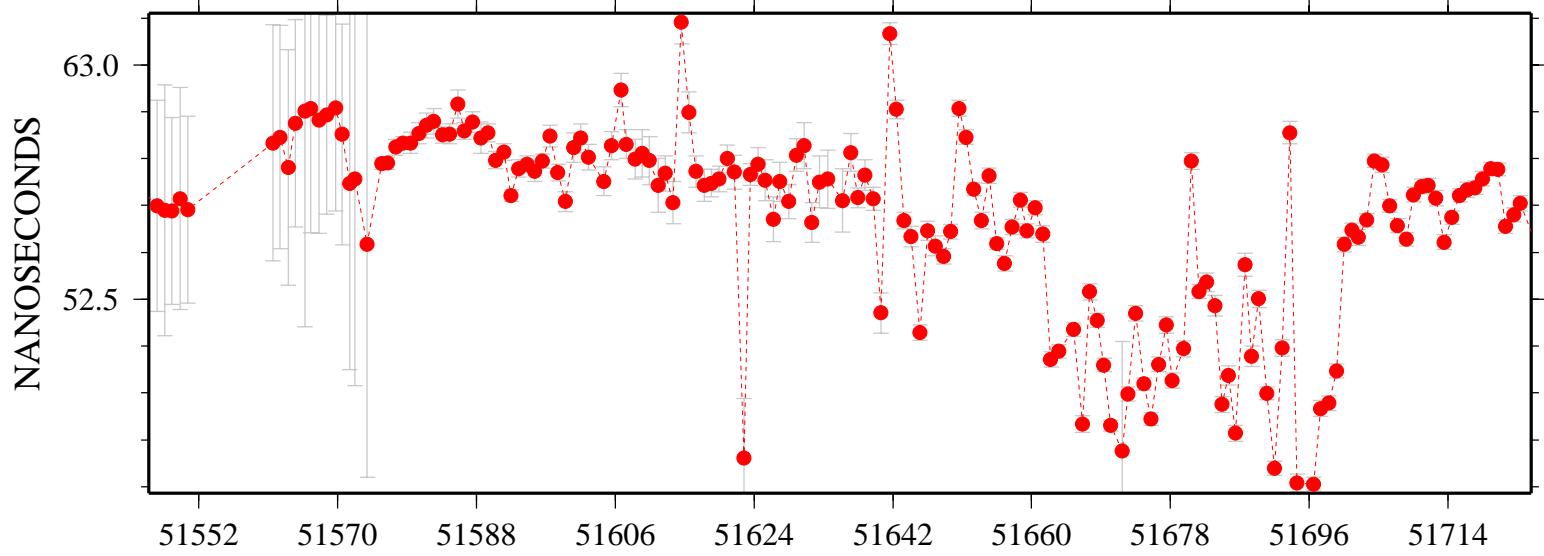


# USNO(g) - AMC

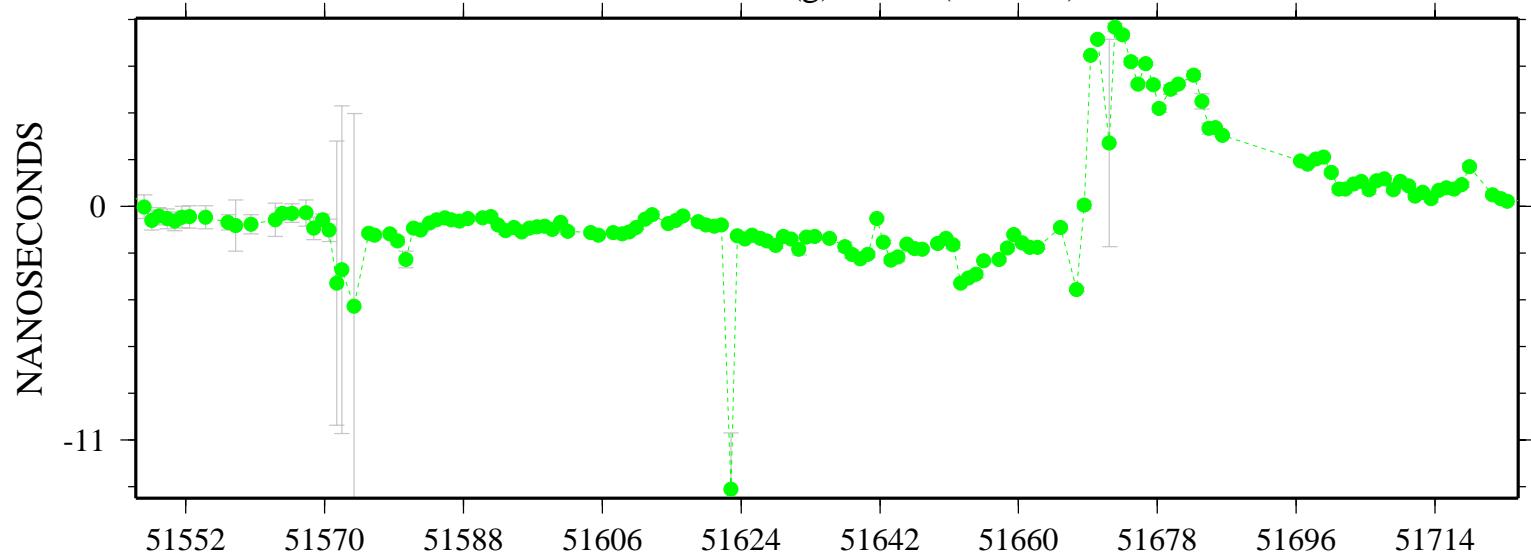
	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51696.5768	0.7	-43.5	-1.385	- 49513.667CP	44.2	2.1	-42.1	0.1	0.3	0.006
51697.5136	0.7	-46.9	-1.289		47.6	2.0	-45.6	0.2	0.3	0.006
51698.5559	1.0	-46.9	-1.275		47.8	2.2	-45.6	0.1	0.3	0.006
51699.5344	0.9	-48.4	-1.429		49.3	2.3	-47.0	0.1	0.3	0.005
51700.5552	0.0	-55.0	-1.623		55.0	1.6	-53.3	0.1	0.3	0.004
51701.5761	-0.9	-56.5	-1.688		55.6	0.8	-54.8	0.2	0.3	0.005
51702.4129	-0.9	-56.1	-1.660		55.3	0.8	-54.5	0.2	0.3	0.006
51703.4511	-0.8	-56.9	-1.886		56.1	1.0	-55.0	0.1	0.3	0.004
51704.4511	-0.5	-59.2	-1.729		58.7	1.2	-57.5	0.1	0.3	0.005
51705.4518	-0.8	-59.3	-1.570		58.5	0.8	-57.7	0.2	0.3	0.004
51706.4511	-0.3	-57.0	-1.532		56.7	1.2	-55.5	0.1	0.2	0.004
51707.4920	-0.2	-56.0	-1.541		55.8	1.3	-54.5	0.2	0.3	0.006
51708.5768	-0.6	-55.8	-1.414		55.2	0.8	-54.4	0.1	0.3	0.004
51709.5559	-0.1	-57.3	-1.312		57.2	1.2	-56.0	0.1	0.3	0.003
51710.5761	-0.3	-57.8	-1.241		57.6	1.0	-56.6	0.1	0.3	0.004
51711.4715	-0.6	-58.2	-1.109		57.6	0.5	-57.1	0.1	0.3	0.003
51712.4719	-0.4	-57.5	-1.085		57.0	0.7	-56.4	0.1	0.3	0.006
51713.4719	-0.3	-55.4	-0.706		55.1	0.4	-54.7	0.2	0.3	0.006
51714.5358	0.4	-55.7	-0.307		56.2	0.7	-55.4	0.1	0.3	0.004
51715.5344	0.7	-56.5	-0.174	+ 146.349CP	57.2	0.9	-56.3	0.1	0.3	0.007
51716.5139	0.5	-56.9	-0.303		57.4	0.8	-56.6	0.1	0.3	0.009
51717.5351	0.1	-57.4	-0.921		57.5	1.0	-56.5	0.1	0.3	0.006
51718.4733	0.8	-57.1	-1.047		57.9	1.9	-56.0	0.1	0.3	0.004
51719.5344	0.5	-57.8	2.328		58.3	-1.8	-60.2	0.1	0.3	Inf
51720.5139	0.1	-58.3			58.3			0.1	0.3	
51721.4945	-0.6	-56.3	-1.121	+ 832.412CP	55.8	0.6	-55.2	0.1	0.3	0.005
51722.5347	-0.8	-57.1	-1.165		56.3	0.4	-55.9	0.1	0.3	0.003
51723.4094	-0.8	-57.6	-1.058		56.8	0.2	-56.6	0.2	0.3	0.004
51724.8059	-0.7	-56.3	-0.990		55.5	0.3	-55.3	0.3	0.3	0.005

The ADJUSTMENTS column indicates any manual adjustments (e.g. calibration) that have been applied to either TW, CV, or CP data. In particular, since CP data is currently obtained from non-calibrated systems, arbitrary offsets are often applied to CP data to keep column widths small.

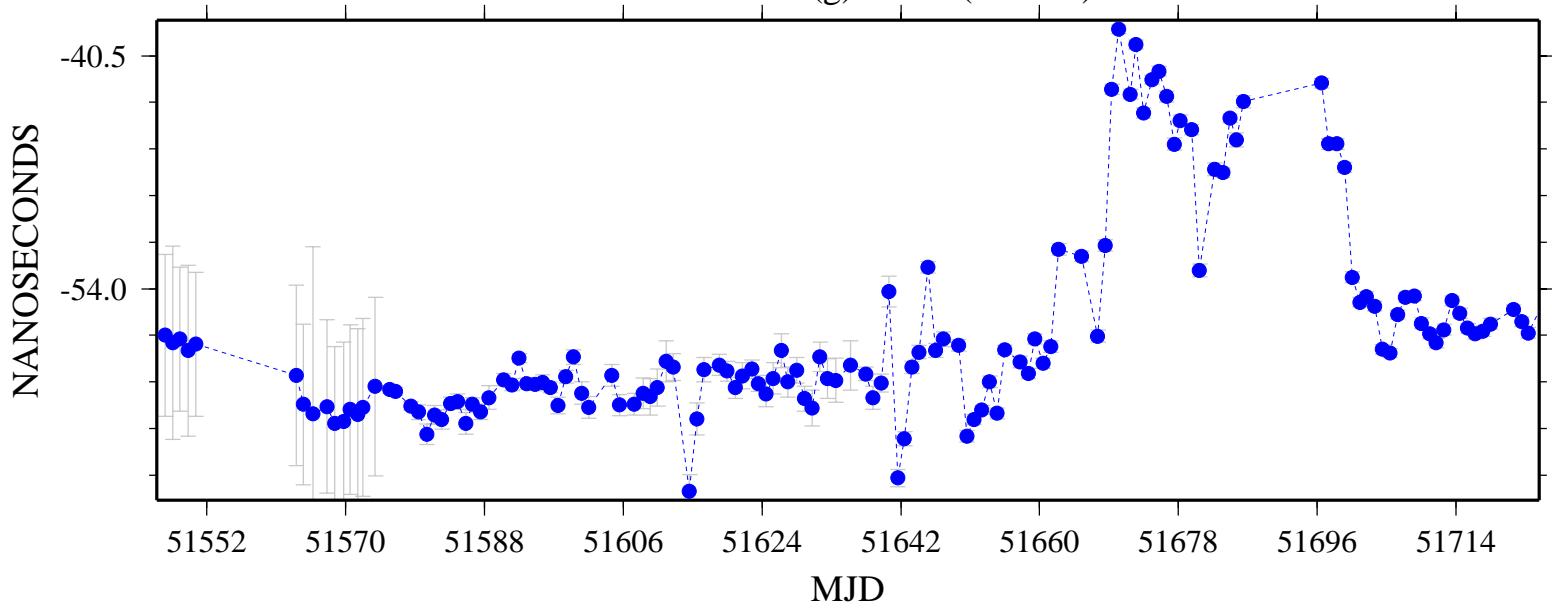
USNO(g)-AMC (TW-CV)



USNO(g)-AMC (TW-CP)



USNO(g)-AMC (CV-CP)



# USNO(h) - NPL

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51696.5000		7.7	-100.256	- 50151.953CP			108.0		1.1	0.011
51697.6097	2.1	9.5	-99.515		-7.4	101.6	109.0	0.8	1.2	0.010
51698.5000		8.7	-99.029				107.8		1.0	0.011
51699.5000		6.8	-98.731				105.5		1.4	0.007
51700.5000		10.8	-98.450				109.2		0.9	0.006
51701.5000		8.9	-98.146				107.0		1.3	0.009
51702.6097	3.2	11.8	-97.654		-8.6	100.8	109.5	0.4	1.2	0.007
51703.5000		7.8	-97.334				105.1		1.6	0.008
51704.6097	1.6	9.4	-96.544		-7.8	98.1	105.9	0.3	1.4	0.010
51705.5000		10.8	-96.135				106.9		1.8	0.007
51706.5000		8.3	-95.995				104.3		1.2	0.007
51707.5000		13.1	-95.657				108.7		1.0	0.006
51708.5000		13.3							1.2	
51709.6097	5.8	9.1			-3.3			0.3	1.2	
51710.5000		9.8	-92.338				102.1		1.7	0.008
51711.6097	5.2	7.9	-92.366		-2.7	97.6	100.3	0.4	0.6	0.006
51712.5000		13.9	-92.481				106.4		1.7	0.009
51713.5000		14.9	-92.448				107.3		1.1	0.010
51714.6097	4.3	8.7	-92.395		-4.4	96.7	101.1	0.4	1.7	0.007
51715.5000		11.0	-91.976				103.0		2.7	0.008
51716.6097	6.7	10.8	-92.283		-4.1	99.0	103.1	0.3	0.9	0.012
51717.5000		14.0	-92.954				106.9		1.0	0.008
51718.6097	6.5	11.7	-93.211		-5.2	99.7	104.9	0.3	0.9	0.006
51719.5000		14.2	-93.398				107.6		0.7	0.004
51720.5000		12.2	-93.360				105.6		1.2	0.006
51721.5000		10.4	-93.162				103.5		1.7	0.005
51722.5000		14.6	-93.039				107.6		1.5	0.005
51723.6097	6.8	10.9	-92.950		-4.1	99.7	103.9	0.4	1.2	0.004
51724.5000		14.3	-92.992				107.2		1.2	0.006

The **ADJUSTMENTS** column indicates any manual adjustments (e.g. calibration) that have been applied to either TW, CV, or CP data. In particular, since CP data is currently obtained from non-calibrated systems, arbitrary offsets are often applied to CP data to keep column widths small.

USNO(h)-NPL (TW-CV)

NANOSECONDS

0  
-11

51552 51570 51588 51606 51624 51642 51660 51678 51696 51714

USNO(h)-NPL (TW-CP)

NANOSECONDS

99  
88

51552 51570 51588 51606 51624 51642 51660 51678 51696 51714

USNO(h)-NPL (CV-CP)

NANOSECONDS

110  
99

51552 51570 51588 51606 51624 51642 51660 51678 51696 51714

MJD

x and y-axes are same scale

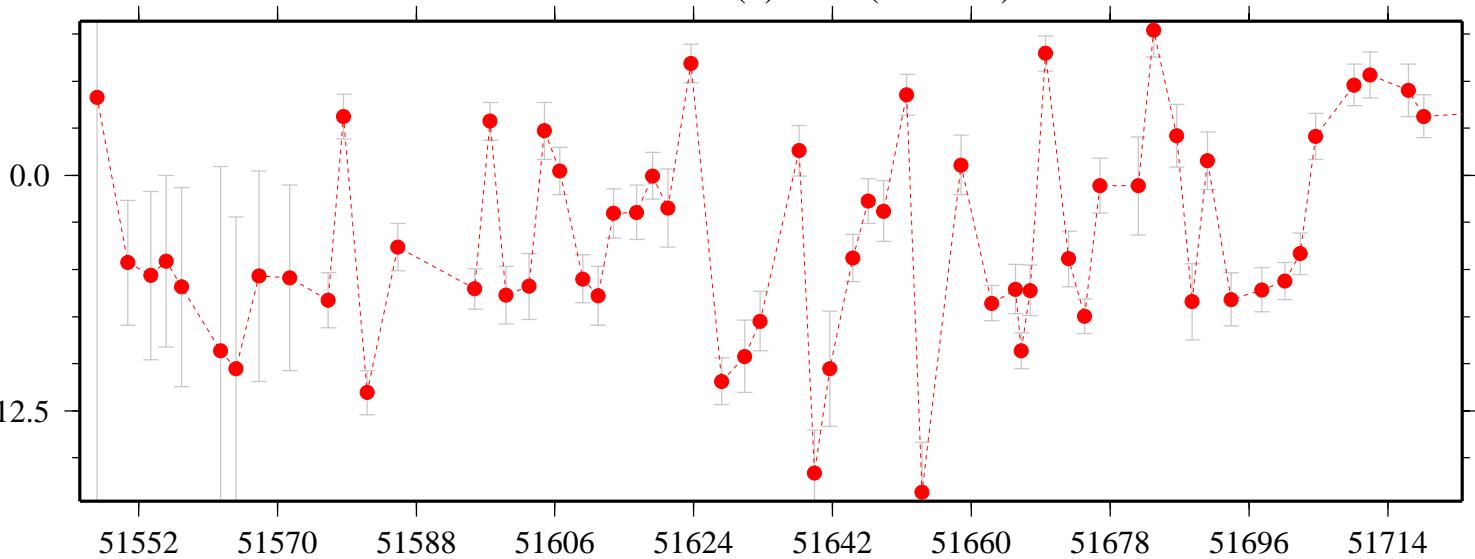
# USNO(h) - PTB

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51696.5000		-0.8							0.8	
51697.6160	-1.2	4.9	19.807	- 50151.943CP	-6.1	-21.0	-14.9	0.7	1.0	0.039
51698.5000		3.6	18.764				-15.2		3.8	0.050
51699.5000		-0.3	20.363				-20.7		1.1	0.194
51700.6160	-0.2	5.4	19.386		-5.6	-19.6	-14.0	0.6	0.7	0.015
51701.5000		0.0	20.519				-20.5		0.8	0.019
51702.6160	1.1	5.3	19.300	- 0.145CP	-4.2	-18.2	-14.0	0.6	0.9	0.022
51703.5000		0.0	18.322				-18.3		1.1	0.009
51704.6160	3.1	1.1	17.383		2.1	-14.3	-16.3	0.4	1.1	0.025
51705.5000		0.7	17.980				-17.2		1.0	0.021
51706.5000		-2.3	19.290				-21.6		0.8	0.014
51707.5000		5.5	19.744				-14.2		0.8	0.012
51708.5000		5.2	20.558				-15.4		1.1	0.027
51709.6160	5.2	0.5	19.852		4.8	-14.6	-19.4	0.5	1.0	0.015
51710.5000		1.3	19.723				-18.4		1.4	0.012
51711.6160	4.4	-1.0	20.264		5.3	-15.9	-21.2	0.5	1.1	0.018
51712.5000		4.2	20.004				-15.8		1.4	0.023
51713.5000		6.2	18.761				-12.6		1.2	0.018
51714.5000		3.0	17.485				-14.5		1.4	0.022
51715.5000		-3.8							0.9	
51716.6160	3.7	-0.8	17.141		4.5	-13.4	-17.9	1.2	0.6	0.031
51717.5000		2.7	16.804				-14.1		1.1	0.037
51718.6160	3.3	0.2	13.920		3.1	-10.6	-13.8	0.5	1.0	0.037
51719.5000		-1.2	13.949				-15.1		0.8	0.010
51720.5000		-5.6	14.246				-19.8		0.9	0.058
51721.5000		-3.8	12.842				-16.6		1.3	0.055
51722.5000		-1.4	13.539				-15.0		1.0	0.018
51723.6160	-1.4	-4.7			3.3			0.6	0.6	
51724.5000		-3.1							0.8	

The **ADJUSTMENTS** column indicates any manual adjustments (e.g. calibration) that have been applied to either TW, CV, or CP data. In particular, since CP data is currently obtained from non-calibrated systems, arbitrary offsets are often applied to CP data to keep column widths small.

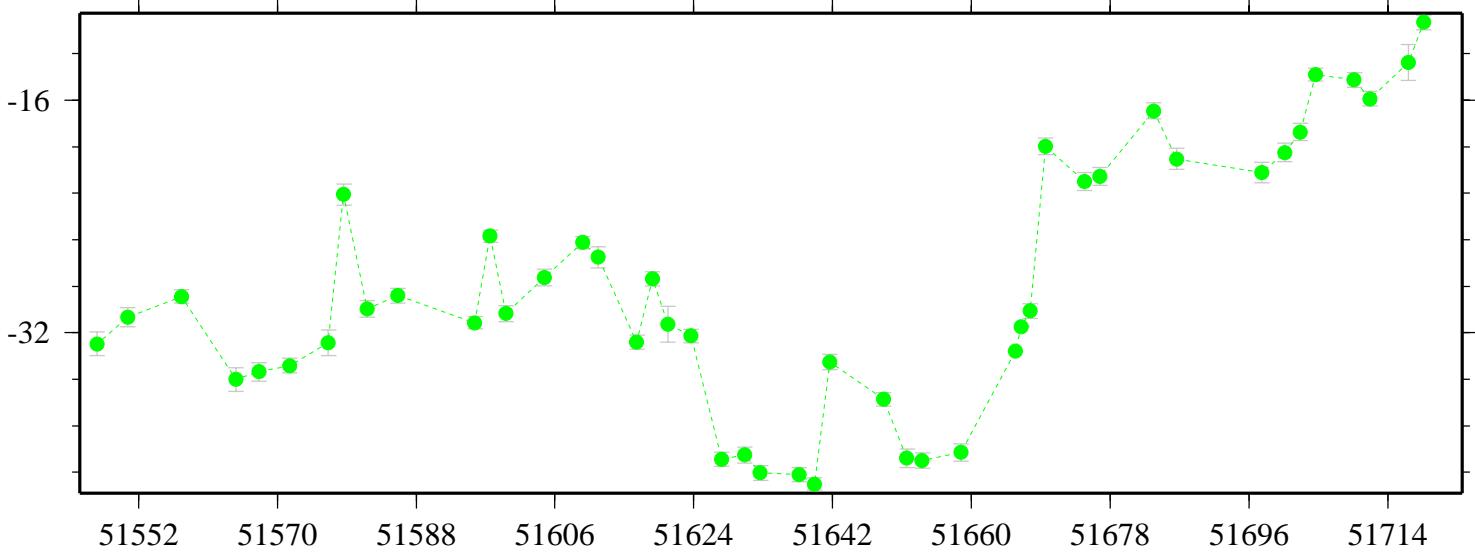
USNO(h)-PTB (TW-CV)

NANOSECONDS



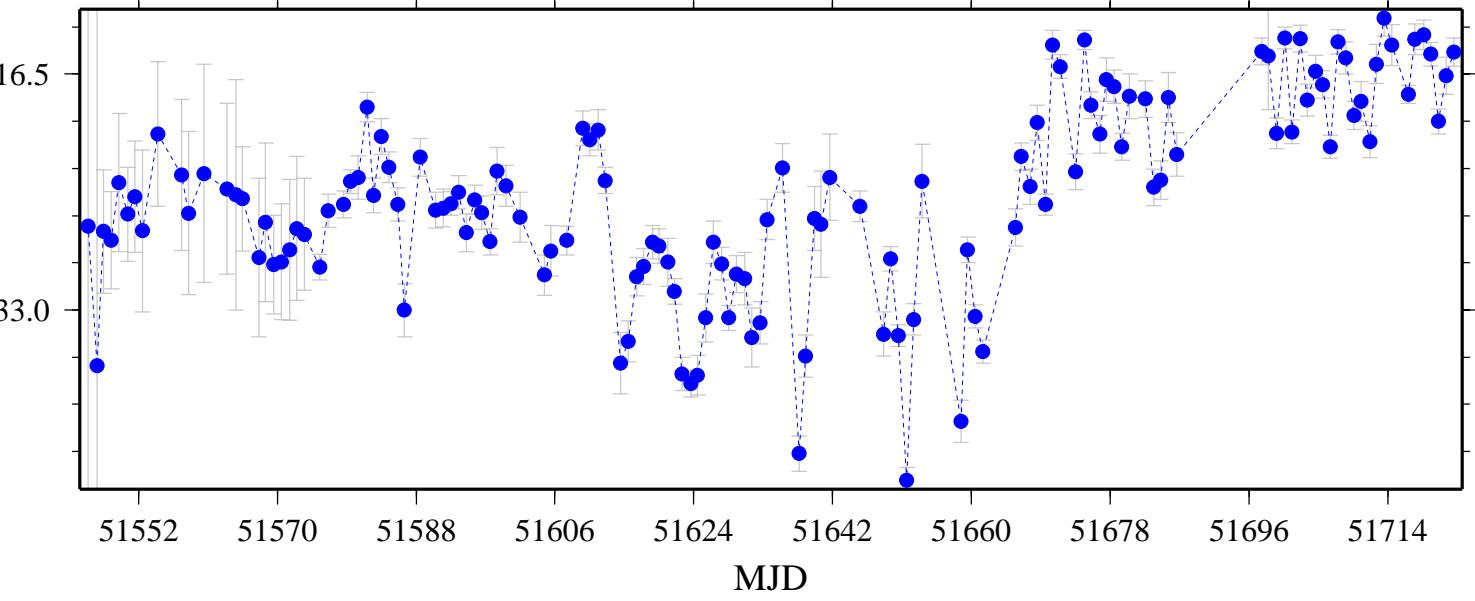
USNO(h)-PTB (TW-CP)

NANOSECONDS



USNO(h)-PTB (CV-CP)

NANOSECONDS



<b>AMC</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> AOATWT-1000  <b>antenna:</b> 1.8m-VSAT  <b>reference standard name:</b> UTC(USNOAMC(MC1))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> AOA2 SN113  <b>receiver model:</b> AOA-TTR4P  <b>antenna:</b> XXX  <b>reference standard name:</b> UTC(USNOAMC(MC1))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>AOA2</u></b></p> <p><b><u>NOTES:</u></b></p> <p>Receiver not calibrated.</p>
<b>CP</b>	<p><b>receiver name (local):</b> AMC2  <b>receiver model:</b> AOA SNR-12 ACT  <b>antenna:</b> AOAD-M_T  <b>reference standard name:</b> UTC(USNOAMC(MC1))  <b>reference standard type:</b> steered H-MASER</p> <p><b><u>LOGS:</u></b></p> <p>51725 20-Jun-00 <a href="#">receiver stopped tracking at ~00:12; restarted at 12:10</a></p> <p><b><u>NOTES:</u></b></p> <p>This is an IGS station (AMC2).</p>

<b>NPL</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> SATRE  <b>antenna:</b> 1.8m-VSAT  <b>reference standard name:</b> UTC(NPL)  <b>reference standard type:</b> H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> xxx SN276  <b>receiver model:</b> AOA-TTR5A  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(NPL)  <b>reference standard type:</b> H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>xxx</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This receiver system has an arbitrary fixed offset from UTC(NPL) which has not been measured.</p>
<b>CP</b>	<p><b>receiver name (local):</b> NPLB  <b>receiver model:</b> Ashtech Z-XII3  <b>antenna:</b> ASH700718B  <b>reference standard name:</b> UTC(NPL)  <b>reference standard type:</b> H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This receiver system has a fixed offset of UTC(NPL)-1pps_input = (8441+/-1)ns, subject to temperature variations on the 200m cable joining two buildings.</p>

<b>PTB</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> SATRE  <b>antenna:</b> 1.8m-VSAT  <b>reference standard name:</b> UTC(PTB)  <b>reference standard type:</b> CESIUM(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> xxx xxx  <b>receiver model:</b> AOA-TTR5  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(PTB)  <b>reference standard type:</b> CESIUM(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>xxx</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CP</b>	<p><b>receiver name (local):</b> PTBA  <b>receiver model:</b> modified Ashtech Z-12T GeTT terminal  <b>antenna:</b> choke-ring  <b>reference standard name:</b> H2  <b>reference standard type:</b> H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This is a GeTT receiver. CP clock estimates at PTB are referenced to UTC(PTB) using data from an SRS620 time interval counter.</p>

<b>USNO(a)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> EACS-TWSTT-2000(sn#103)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b>LOGS:</b></p> <p><b>NOTES:</b></p>
<b>CV</b>	<p><b>receiver name (local):</b> AOA1 SN12  <b>receiver model:</b> AOA-TTR4P  <b>antenna:</b> XXX  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b>LOGS:</b></p> <p><b>AOA1</b></p> <p><b>NOTES:</b></p> <p>Receiver not calibrated.</p>
<b>CP</b>	<p><b>receiver name (local):</b> USNO  <b>receiver model:</b> AOA SNR-12 ACT  <b>antenna:</b> AOAD-M_T  <b>reference standard name:</b> UTC(USNO(MC3))  <b>reference standard type:</b> steered H-MASER</p> <p><b>LOGS:</b></p> <p>51724 05-Jun-00 <a href="#">receiver stopped at 00:06; restarted at 10:45</a></p> <p><b>NOTES:</b></p> <p>CP clock estimates are referenced to UTC(USNO(MC2)) using data from an optic fiber link.</p>

<b>USNO(b)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> Mitrex-2500(sn#85006)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steeded)</p> <p><b>LOGS:</b></p> <p><b>NOTES:</b></p>
<b>CV</b>	<p><b>receiver name (local):</b> TTR1 SN440  <b>receiver model:</b> AOA-TTR6  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steeded)</p> <p><b>LOGS:</b></p> <p><b>TTR1</b></p> <p><b>NOTES:</b></p> <p>This is the primary USNO SPS common view receiver.</p>
<b>CP</b>	<p><b>receiver name (local):</b> USNO  <b>receiver model:</b> AOA SNR-12 ACT  <b>antenna:</b> AOAD-M_T  <b>reference standard name:</b> UTC(USNO(MC3))  <b>reference standard type:</b> steered H-MASER</p> <p><b>LOGS:</b></p> <p>51724 05-Jun-00 <a href="#">receiver stopped at 00:06; restarted at 10:45</a></p> <p><b>NOTES:</b></p> <p>CP clock estimates are referenced to UTC(USNO(MC2)) using data from an optic fiber link.</p>

<b>USNO(c)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> EACS-TWSTT-2000(sn#103)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> AOA1 SNxxx  <b>receiver model:</b> AOA-TTR4P  <b>antenna:</b> XXX  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>AOA1</u></b></p> <p><b><u>NOTES:</u></b></p> <p>Receiver not calibrated.</p>
<b>CP</b>	<p><b>receiver name (local):</b> USNB  <b>receiver model:</b> modified Ashtech Z-12T GeTT terminal  <b>antenna:</b>  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> steered H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This is a GeTT receiver.</p>

<b>USNO(d)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> Mitrex-2500(sn#85006)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steeded)</p>
	<p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> TTR1 SN440  <b>receiver model:</b> AOA-TTR6  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steeded)</p>
	<p><b><u>LOGS:</u></b></p> <p><b><u>TTR1</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This is the primary USNO SPS common view receiver.</p>
<b>CP</b>	<p><b>receiver name (local):</b> USNB  <b>receiver model:</b> modified Ashtech Z-12T GeTT terminal  <b>antenna:</b>  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> steered H-MASER</p>
	<p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This is a GeTT receiver.</p>

<b>USNO(e)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> EACS-TWSTT-2000(sn#103)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b>LOGS:</b></p> <p><b>NOTES:</b></p>
<b>CV</b>	<p><b>receiver name (local):</b> AOA1 SNxxx  <b>receiver model:</b> AOA-TTR4P  <b>antenna:</b> XXX  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b>LOGS:</b></p> <p><b>AOA1</b></p> <p><b>NOTES:</b></p> <p>Receiver not calibrated.</p>
<b>CP</b>	<p><b>receiver name (local):</b> NIM1  <b>receiver model:</b> Ashtech Z-12  <b>antenna:</b> Geodetic 3  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> steered H-MASER</p> <p><b>LOGS:</b></p> <p><b>NOTES:</b></p> <p>This receiver is owned by the National Imagery and Mapping Agency (NIMA)</p>

<b>USNO(f)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> Mitrex-2500(sn#85006)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> TTR1 SN440  <b>receiver model:</b> AOA-TTR6  <b>antenna:</b> XXX  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>TTR1</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This is the primary USNO SPS common view receiver.</p>
<b>CP</b>	<p><b>receiver name (local):</b> NIM1  <b>receiver model:</b> Ashtech Z-12  <b>antenna:</b> Geodetic 3  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> steered H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This receiver is owned by the National Imagery and Mapping Agency (NIMA)</p>

<b>USNO(g)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> EACS-TWSTT-2000(sn#103)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b>LOGS:</b></p> <p><b>NOTES:</b></p>
<b>CV</b>	<p><b>receiver name (local):</b> AOA1 SNxxx  <b>receiver model:</b> AOA-TTR4P  <b>antenna:</b> XXX  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b>LOGS:</b></p> <p><b>AOA1</b></p> <p><b>NOTES:</b></p> <p>Receiver not calibrated.</p>
<b>CP</b>	<p><b>receiver name (local):</b> NIM2  <b>receiver model:</b> Ashtech Z-12  <b>antenna:</b> Geodetic 3  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> steered H-MASER</p> <p><b>LOGS:</b></p> <p><b>NOTES:</b></p> <p>This receiver is owned by the National Imagery and Mapping Agency (NIMA)</p>

<b>USNO(h)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> Mitrex-2500(sn#85006)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steeded)</p> <p><b>LOGS:</b></p> <p><b>NOTES:</b></p>
<b>CV</b>	<p><b>receiver name (local):</b> TTR1 SN440  <b>receiver model:</b> AOA-TTR6  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steeded)</p> <p><b>LOGS:</b></p> <p><b>TTR1</b></p> <p><b>NOTES:</b></p> <p>This is the primary USNO SPS common view receiver.</p>
<b>CP</b>	<p><b>receiver name (local):</b> NIM2  <b>receiver model:</b> Ashtech Z-12  <b>antenna:</b> Geodetic 3  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> steered H-MASER</p> <p><b>LOGS:</b></p> <p><b>NOTES:</b></p> <p>This receiver is owned by the National Imagery and Mapping Agency (NIMA)</p>